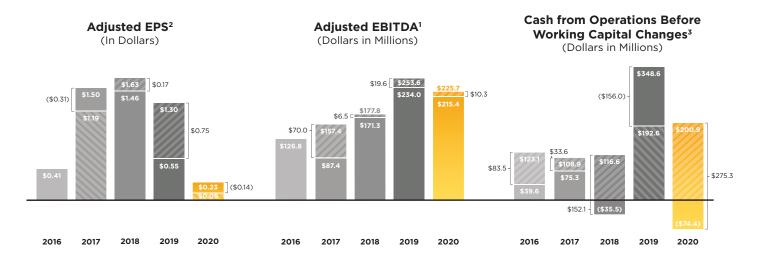
2020 ANNUAL REPORT



FINANCIAL HIGHLIGHTS

OPERATING RESULTS (IN THOUSANDS)	2020	2019	% Change
Sales and merchandising revenues	\$8,208,436	\$8,170,191	0.5%
Gross profit	404,922	517,892	(21.8)%
Operating, administrative and general expenses	399,207	436,842	(8.6)%
Income (loss) before income taxes	(24,474)	28,111	(187.1)%
Income (loss) before income taxes attributable to The Andersons, Inc.	(2,549)	31,358	(108.1)%
Net income (loss)	(14,215)	15,060	(194.4)%
Net income attributable to The Andersons, Inc.	7,710	18,307	(57.9)%
Earnings before interest, taxes, depreciation and amortization (EBITDA) ¹	215,439	233,968	(7.9)%
Cash provided by (used in) operating activities	(74,432)	348,562	(121.4)%
FINANCIAL POSITION (IN THOUSANDS)			
Total assets	\$4,272,121	\$3,900,741	9.5%
Working capital	484,727	505,423	(4.1)%
Readily marketable inventories (RMI)	983,234	863,198	13.9%
Short-term debt	403,703	147,031	174.6%
Long-term debt, including current maturities	992,015	1,079,147	(8.1)%
Total equity	1,160,660	1,195,655	(2.9)%
PER SHARE DATA			
Diluted earnings attributable to The Andersons, Inc. common shareholders (EPS)	\$0.23	\$0.55	(58.2)%
Dividends declared	0.70	0.685	2.2%
Year-end market value	24.51	25.28	(3.0)%
RATIOS AND OTHER DATA			
Long-term debt, including current maturities to Adjusted EBITDA	4.39	4.25	3.3%
Weighted average shares outstanding (diluted) (in thousands)	33,189	33,096	0.3%
Effective tax rate	41.9%	46.4%	(9.7)%



¹EBITDA and Adjusted EBITDA are both non-GAAP financial measures. EBITDA is calculated as interest expense, tax expense, depreciation and amortization added back to net income. Adjusted EBITDA excludes pretax charges for severance and acquisition costs for 2020; pretax charges for acquisition costs for 2020; pretax charges for acquisition costs for 2016; pretax charges for acquisition costs for 2018; and pretax charges for goodwill and asset impairments for 2017.

² Adjusted EPS is a non-GAAP financial measure. The measure excludes after-tax charges for severance and acquisition costs as well as income tax benefits resulting from the Coronavirus Aid, Relief, and Economic Security (CARES) Act for 2020; after-tax charges for acquisition costs, asset impairments (including equity method investments) and after-tax gains on asset sales (including equity method investments) for 2019; after-tax charges for acquisition costs for 2018; and after-tax charges for goodwill impairments, asset impairments as well as income tax benefits resulting from U.S. federal income tax reform for 2017.

³Cash from operations before working capital changes is a non-GAAP financial measure. This measure is calculated by adding back changes in working capital to cash provided by (used in) operating activities as stated in the audited statement of cash flows. In 2020, cash from operations before working capital changes was adjusted for additional expected cash benefits resulting from the CARES Act.



DEAR SHAREHOLDERS AND FRIENDS,

In late 2019, we introduced a new vision statement to our employees, which we have since shared publicly:

To be the most nimble and innovative North American ag supply chain company.

Due in large part to the pandemic, we had myriad opportunities to practice those traits during 2020. By and large, we responded well to the unique challenges we confronted due to COVID-19.

Our ag supply chain businesses were deemed essential, and our operations personnel kept working without skipping a beat, taking appropriate safety precautions to allow us to feed and fuel the world. We began to regularly use terms such as "social distancing" and "quarantine" and implemented new ways of doing business to reduce COVID risks for our employees and customers. We are especially thankful to our nearly 2,400 fellow employees, without whose efforts we could not have accomplished all that we did in 2020.

We were pleased with our overall 2020 operating results given the negative impacts the pandemic had on our businesses. We reported 2020 net income attributable to the company of \$7.7 million, or \$0.23 per diluted share. Adjusted net income was \$2.9 million or \$0.09 per diluted share. The difference in the two measures was primarily attributable to tax benefits from the CARES Act that we excluded from our adjusted results. Our adjusted 2020 earnings before interest, taxes, depreciation and amortization (EBITDA) was \$226 million compared to adjusted 2019 EBITDA of \$254 million.

We originally planned to further integrate recent acquisitions and continue to achieve cost efficiencies during 2020; the pandemic resulted in the acceleration of these efforts. In addition to the approximately \$10 million in 2020 cost savings we had originally disclosed, we identified and implemented approximately \$20 million in incremental savings before the year was half over. Then, in the third quarter, we announced a top-level business reorganization which included simplifying our business groups from four to two. We believe this change will save an additional \$10 million beginning in 2021. All told, we expect that 2021 expenses will be lower than comparable 2019 expenses by about \$25 million, or more than \$0.50 per share.

The reorganization was completed with much more than cost savings in mind. The combination of the former Trade and Ethanol Groups to form The Andersons Trade and Processing business has led to many commercial and operational synergies. The former Plant Nutrient and Rail Groups have also been combined to form The Andersons Nutrient and Industrial business. Decision-making has largely been streamlined.

While we have reorganized our management structure, we still report our business results in four segments. The **TRADE** segment recorded somewhat lower results in 2020 while dealing with the adverse impacts of a poor 2019 harvest in the Eastern Corn Belt, lower wheat income and a significant decrease in corn demand from ethanol producers. The increased breadth of our merchandising portfolio continued to yield substantial benefits, as gross profit from merchandising activities

rose by more than 25 percent. Adjusted EBITDA decreased for the full year but began to recover in the fourth quarter, as fall harvest results improved markedly year over year. A significant increase in export demand caused grain prices to rise rapidly, which drove welcome price volatility but inverted grain futures prices.

The **ETHANOL** segment felt the impact of the pandemic more than any of our other businesses, and adjusted pretax income attributable to the company was approximately \$40 million lower year over year. Shelter-in-place orders that began in many states in March reduced gasoline demand by as much as 50 percent compared to 2019, causing board crush margins to decline. While demand recovered to about 90 percent of normal levels late in the year, the fourth quarter spike in corn prices and ethanol oversupply continued to impact margins.

However, there were some positives for our Ethanol segment in 2020. We began to produce high-protein feed products at two plants later in the year. The spike in corn prices increased the value of all feed products, and the demand from a burgeoning U.S. renewable diesel (RD) market did the same for corn oil. We set up a new trading desk for RD feedstocks that has already been quite successful.

On an even brighter note, the **PLANT NUTRIENT** segment celebrated its best full-year results since 2014, as we capitalized on an ideal spring planting season. Pretax income almost doubled year over year, as tons sold increased by 15 percent. Adjusted EBITDA increased by 12 percent. The engineered granule business successfully introduced new products and increased its e-commerce profile.

The **RAIL** segment's pretax income declined considerably in 2020, as the pandemic drove U.S. carloads lower. At one time, nearly one-third of the North American fleet was idled, and 25 percent remained out of service and in storage at year-end. As a result, leasing and repair income was much weaker and income from car sales was negligible, as we chose to sell fewer cars than in 2019.

Throughout this time, our liquidity and cash flow remained strong. Our cash flow from operations before changes in working capital increased year over year, and we took a disciplined approach to capital spending. As a result, we reduced long-term debt in 2020 by nearly \$100 million.

While the pandemic is certainly not over, we are encouraged about how things are setting up for us in 2021. The pace of COVID vaccinations is rising, the ag markets continue to present good merchandising opportunities, and the overall economy is showing signs of recovery.

The rally in grain and other commodity prices has been unlike anything we have seen in the ag market for a long time. Strong exports, particularly to China, have led the rally, which we think could last well into this year since it is being driven by demand. We expect that more corn acres will be planted in 2021, which would benefit both our Trade and Plant Nutrient segments. All of this is also good news for our farmer customers, whose incomes have risen considerably and whose overall financial health is important to our success.

These conditions drive strong elevation margins and considerable volatility, which creates good merchandising opportunities. In addition, we are seeing excellent results in other products we merchandise such as feed ingredients and propane.

Spot ethanol crush margins remain negative. We continue to hedge corn purchases and ethanol sales when it makes sense, which should help mitigate that challenge. Our plants are running well and at a relatively low variable cost per gallon. As with the rest of the industry, we are dependent on the balance between gasoline demand and ethanol supply to normalize margins, but we see growth in E15 and increasing export demand as potential tailwinds.

The future looks bright for ethanol coproducts. Traditional DDGs are trading well above corn values. In addition, we are selling more higher value feed products, primarily from our ELEMENT facility. We are also benefiting from a sustained uptick in corn oil values driven by increased demand for renewable diesel, and the trading platform we built in 2020 for other RD feedstocks is producing growing results.

We anticipate that our Plant Nutrient business will maintain its 2020 momentum into early 2021. We expect some additional improvement assuming sustained higher commodity prices and what we anticipate will be another strong planting season.

In our Rail business, weekly intermodal and grain car loadings are now up year over year, but that improvement has not found its way to most other freight and tank car markets yet. We expect a slower recovery for railcar leasing and repair services during much of 2021.

We plan to continue to reduce our long-term debt, but that will not prevent us from evaluating acquisitions and organic growth projects that present good returns. The hard work we have done over the past two years to integrate the Lansing acquisition and significantly reduce expenses has put us in excellent position to grow in 2021.

We recently celebrated our 25th anniversary as a public company. We have grown into a much larger, stronger, and more nimble and innovative company in the North American ag supply chain. We look forward to providing extraordinary service to our customers, supporting our suppliers and communities, and rewarding our employees and shareholders in 2021 and for many more years to come.

Thank you for your support,

Pat Bowe President and Chief Executive Officer Brian Valentine
Executive Vice President and
Chief Financial Officer

CORPORATE INFORMATION

BOARD OF DIRECTORS



Gerard M. Anderson (3)(4) Executive Chairman DTE Energy



Catherine M. Kilbane (2)(4)(5) Retired Senior Vice President, General Counsel and Secretary The Sherwin-Williams Company



Michael J. Anderson Chairman The Andersons, Inc.



Robert J. King, Jr. ⁽²⁾⁽³⁾ Senior Advisor First National Bank Corporation



Patrick E. Bowe President and Chief Executive Officer The Andersons, Inc.



Ross W. Manire (1)(3) Retired President and Chief Executive Officer ExteNet Systems, Inc.



Stephen F. DowdleRetired President of Sales
PotashCorp



Patrick S. Mullin (1)(4) Retired Managing Partner Northeast Ohio Practice Deloitte & Touche LLP



Pamela S. Hershberger (1) Retired Managing Partner Toledo, Ohio Office Ernst & Young, LLP



John T. Stout, Jr. ⁽²⁾⁽³⁾ Chairman and Chief Executive Officer Plaza Belmont Management Group, LLC

CORPORATE OFFICERS



Patrick E. BowePresident and
Chief Executive Officer



Joseph E. McNeely President, Nutrient and Industrial



Christine M. Castellano Executive Vice President, General Counsel and Corporate Secretary



Anne G. RexVice President, Strategy,
Planning and Development



Michael T. Hoelter Vice President, Corporate Controller and Investor Relations



Brian A. ValentineExecutive Vice President and Chief Financial Officer



William E. Krueger President, Trade and Processing



Brian K. WalzVice President and Treasurer

(1) Audit Committee

(2) Compensation/Leadership
Development Committee

(3) Finance Committee

(4) Governance/Nominating Committee

(5) Lead Independent Director

INVESTOR INFORMATION

CORPORATE OFFICES

The Andersons, Inc.
1947 Briarfield Boulevard
Maumee, OH 43537
419-893-5050
www.andersonsinc.com

NASDAQ SYMBOL

The Andersons, Inc. common shares are traded on the Nasdaq Global Select tier of The Nasdaq Stock Market under the symbol ANDE.

COMMON STOCK

33 million shares outstanding as of December 31, 2020.

DIRECT STOCK PURCHASE AND DIVIDEND REINVESTMENT

Computershare CIP, which is a direct stock purchase and dividend reinvestment plan sponsored and administered by Computershare Trust Company, N.A. and not by The Andersons, Inc., provides an alternative to traditional methods of buying and selling shares in The Andersons, Inc. Through Computershare CIP, one can purchase and sell The Andersons, Inc. shares directly, rather than dealing with a broker. For more information on Computershare CIP, please go to www.computershare.com/investor or call toll-free at 877-373-6374.

TRANSFER AGENT AND REGISTRAR

Computershare Investor Services, LLC P.O. Box 505000 Louisville, KY 40233 Phone: 312-360-5260 Toll-free: 877-373-6374 Investor Centre™ portal: www.computershare.com/investor

FORM 10-K

Additional copies of The Andersons' 2020 Form 10-K, filed on February 25, 2021, with the SEC, are available to shareholders and interested individuals without charge by writing or calling Investor Relations.

INVESTOR RELATIONS

Michael Hoelter Vice President, Corporate Controller and Investor Relations 419-897-6715 mike_hoelter@andersonsinc.com

INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM
Deloitte & Touche LLP | Cleveland, OH

ANNUAL MEETING

The annual shareholders' meeting of The Andersons, Inc. will be held virtually at 8 a.m. Eastern Time on May 7, 2021.



The Andersons, Inc. 1947 Briarfield Boulevard Maumee, Ohio 43537

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

X A	NNUAL REPORT PURSUANT TO SECTIO	N 13 OR 15(d) OF THE scal year ended December 31,		
□ T	TRANSITION REPORT PURSUANT TO SEC	CTION 13 OR 15(d) OF T	THE SECURITIES EXCHANGE ACT OF	1934
		nsition period from to mission file number: 000-205		
	THE A	The KK Andersons NDERSONS	S, INC.	
	(Exact name of	of the registrant as specified in	its charter)	
	Ohio (State of incorporation or organization)		34-1562374 (I.R.S. Employer Identification No.)	
	1947 Briarfield Boulevard Maumee Ohio (Address of principal executive offices)		43537 (Zip Code)	
	(Address of principal executive offices)	(419) 893-5050 (Telephone Number)	(Zip Code)	
	Securities regis	stered pursuant to Section 12(b	o) of the Act:	
	Title of each class:	Trading Symbol	Name of each exchange on which registered	1:
Com	mon stock, \$0.00 par value, \$0.01 stated value	ANDE	The NASDAQ Stock Market LLC	
	Securities register	ed pursuant to Section 12(g) o	f the Act: None	
Indicate by ch	neck mark if the registrant is a well-known seasoned issuer, as neck mark if the registrant is not required to file reports pursuan neck mark whether the registrant (1) has filed all reports require	nt to Section 13 or 15(d) of the Ac	t. Yes □ No 🗷	ding 12
months (or for Indicate by ch	r such shorter period that the registrant was required to file such that the registrant has submitted electronically during the preceding 12 months (or for such shorter period that	th reports), and (2) has been subject every Interactive Data File require	t to such filing requirements for the past 90 days. Yes 🗷 d to be submitted pursuant to Rule 405 of Regulation S-T (l No □
	neck mark whether the registrant is a large accelerated filer, and as of "large accelerated filer," "accelerated filer," "smaller repo			1 company.
Large accele	erated filer	☐ Accelerated filer		×
Non-acceler	rated filer	☐ Smaller reporting	company	
		Emerging growth		
If an emergi accounting s	ing growth company, indicate by check mark if the registrant h standards provided pursuant to Section 13(a) of the Exchange	as elected not to use the extended Act.	ransition period for complying with any new or revised fina	nancial
	neck mark whether the registrant has filed a report on and attes a 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the			
	neck mark whether the registrant is a shell company (as defined			
The aggregate	e market value of the registrant's voting stock which may be vote the last sales price for such stock on that date as reported on the	eted by persons other than affiliates	s of the registrant was \$418.4 million as of June 30, 2020, c	

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Annual Meeting of Shareholders to be held on May 7, 2021, are incorporated by reference into Part III (Items 10, 11, 12, 13 and 14) of this Annual Report on Form 10-K. The Proxy Statement will be filed with the Commission within 120 days after the end of the fiscal year to which this report relates.

THE ANDERSONS, INC.

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Part I.

Item 1. Business

Company Overview

The Andersons, Inc. (the "Company") is a diversified company rooted in agriculture. Founded in Maumee, Ohio in 1947, the Company is a significant player in the North American agricultural supply chain and conducts its business in the trade, ethanol, plant nutrient and rail sectors.

Segment Descriptions

The Company's operations are classified into four reportable business segments: Trade, Ethanol, Plant Nutrient, and Rail. Each of these segments is organized based upon the nature of products and services offered and aligns with the management structure. See Note 12 to the Consolidated Financial Statements in Item 8 for information regarding business segments.

Trade

The Trade Group (formerly the Grain Group), through recent acquisitions, has evolved into a diversified business focusing on logistics and merchandising across a wide range of commodities. The group specializes in the movement of physical commodities such as whole grains, grain products, feed ingredients, frac sand, domestic fuel products, and other agricultural commodities. The business also operates grain elevators across the U.S. and Canada where income is earned on commodities bought and sold through the elevator, commodities that are purchased and conditioned for resale, and commodities that are held in inventory until a future period, earning space income. Space income consists of appreciation or depreciation in the basis value of commodities held and represents the difference between the cash price of a commodity in one of the Company's facilities and an exchange traded futures price ("basis"); appreciation or depreciation between the future exchange contract months ("spread"); and commodities stored for others upon which storage fees are earned. The Trade Group business also offers a number of unique grain marketing, risk management and origination services to its customers and affiliated ethanol facilities for which it collects fees.

Sales are negotiated by the Company's merchandising staff as commodity prices are not predetermined. The Trade group has a diversified portfolio of physical commodities that are sold, however, the principal commodities sold by the Company are corn, wheat and soybeans which are consistent with the prior year. Most of the Company's exported commodity sales are made through intermediaries while some commodities are shipped directly to foreign countries, mainly Canada. The Company ships grain from its facilities by rail, truck, or boat. Rail shipments are made primarily to grain processors and feeders with some rail shipments made to exporters on the Gulf of Mexico or east coast. Boat shipments are from the Port of Toledo or the Port of Houston. In addition, commodities are transported via truck for direct ship transactions in which producers sell grain to the Company, but delivered directly to the end user.

The Company's trade operations rely principally on forward purchase contracts with producers, dealers and commercial elevators to ensure an adequate supply of commodities to the Company's facilities throughout the year. The Company makes commodity purchases at prices referenced to regulated commodity exchanges.

The Company competes in the sale of commodities with other public and private grain brokers, elevator operators and farmer owned cooperative elevators. Some of the Company's competitors are also its customers. Competition is based primarily on price, service and reliability. Because the Company generally buys in smaller lots, its competition for the purchase of commodities is generally local or regional in scope, although there are some large national and international companies that maintain regional grain purchase and storage facilities. Significant portions of grain bushels purchased and sold are made using forward contracts.

The grain handling business is seasonal in nature in that the largest portion of the principal grains are harvested and delivered from the farm and commercial elevators typically in July for wheat and September through November for corn and beans, although a significant portion of the principal grains are bought, sold and handled throughout the year.

Fixed price purchase and sale commitments as well as commodities held in inventory expose the Company to risks related to adverse changes in market prices. Grain prices are typically comprised of two components, futures prices on regulated commodity exchanges and local basis adjustments. The Company manages the futures price risk by entering into exchange-traded futures and option contracts with regulated commodity exchanges. The contracts are economic hedges of price risk but are not designated or accounted for as hedging instruments. These regulated commodity exchanges maintain futures markets for the grains merchandised by the Company. Futures prices are determined by worldwide supply and demand.

The Company's grain risk management practices are designed to reduce the risk of changing commodity prices. In that regard, such practices also limit potential gains from further changes in market prices. The Company has policies that provide key controls over its risk management practices. These policies include a description of the objectives of the programs and review of daily position limits by key management outside of the trading function along with other internal controls. The Company monitors current market conditions and may expand or reduce the purchasing program in response to changes in those conditions. In addition, the Company monitors its counterparties on a regular basis for credit worthiness, defaults and non-delivery.

Purchases of commodities can be made the day the product is delivered to a terminal or via a forward contract made prior to actual delivery. Sales of commodities generally are made by contract for delivery in a future period. When the Company purchases commodities at a fixed price or at a price where a component of the purchase price is fixed via reference to a futures price on a regulated commodity exchange, it also enters into an offsetting sale of a futures contract on the regulated commodity exchange. Similarly, when the Company sells commodities at a fixed price, the sale is offset with the purchase of a futures contract on the regulated commodity exchange. At the close of business each day, inventory and open purchase and sale contracts as well as open futures and option positions are marked-to-market. Gains and losses in the value of the Company's ownership positions due to changing market prices are netted with, and substantially offset in the Statement of Operations by, losses and gains in the value of the Company's futures positions.

When a futures contract is entered into, an initial margin deposit must be sent to the regulated commodity exchange. The amount of the margin deposit is set by the regulated commodity exchange and varies by commodity. If the market price of a futures contract moves in a direction that is adverse to the Company's position, an additional margin deposit, called a maintenance margin, is required by regulated commodity exchanges. Subsequent price changes could require additional maintenance margin deposits or result in the return of maintenance margin deposits by the regulated commodity exchange. Significant increases in market prices, such as those that occur when grain supplies are affected by unfavorable weather conditions and/or when increases in demand occur, can have an effect on the Company's liquidity and, as a result, require it to maintain appropriate short-term lines of credit. The Company may utilize regulated commodity exchange option contracts to limit its exposure to potential required margin deposits in the event of a rapidly rising market.

The Company has a lease and marketing agreement with Cargill, Incorporated for Cargill's Maumee and Toledo, Ohio grain handling and storage facilities. As part of the agreement, Cargill holds certain marketing rights to grain in the Cargill-owned facilities as well as the adjacent Company-owned facilities in Maumee and Toledo. The marketing agreement contains a profit-sharing provision whereby cumulative earnings generated from the grain facilities are contractually shared. As of December 31, 2020, the lease of the Cargill-owned facilities covers approximately 4%, or 8.8 million bushels, of the Company's total storage space.

Ethanol

The Ethanol Group produces, purchases and sells ethanol and coproducts, offers facility operations, risk management, and ethanol and coproducts marketing services to the ethanol plants it invests in and operates. The group co-owns five ethanol plants located in Indiana, Iowa, Kansas, Michigan and Ohio. The group demonstrates an expertise in ethanol plant management, logistics and commercialization of ethanol and feed products with a focus on leading the industry in margins per bushel. The business also leverages partnerships, which are discussed in further detail below, to expand market knowledge and shared technology across its five plants. Due to the current year reorganization, the Company's moved its Distillers Dried Grains ("DDG") merchandising business from the Trade to Ethanol segment whereby providing the group a merchandising and trade portfolio of ethanol and coproducts.

Through the first nine months of 2019 the Ethanol Group held ownership interests in three limited liability companies ("the ethanol LLCs" or "LLCs"), each of which owned an ethanol plant that was operated by the Company's Ethanol Group. On October 1, 2019, the Ethanol Group entered into an agreement to merge the LLCs and the Company's wholly-owned subsidiary, The Andersons Denison Ethanol LLC into a new legal entity, The Andersons Marathon Holdings LLC ("TAMH"). As a result of the merger, the Company and Marathon Petroleum Corporation ("Marathon") own 50.1% and 49.9% of TAMH equity, respectively. The transaction resulted in the consolidation of TAMH's results in the Company's financial statements effective October 1, 2019. Prior to October 1, 2019 the results of the Ethanol LLCs were accounted for under the equity method of accounting. The four ethanol plants within TAMH are located in Iowa, Indiana, Michigan, and Ohio. These plants have a combined nameplate capacity of 405 million gallons of ethanol.

The Company also owns 51% of ELEMENT, LLC ("ELEMENT") and ICM, Inc. ("ICM") owns the remaining 49% interest. In 2019 ELEMENT completed the construction of a 70 million-gallon-per-year bio-refinery in Kansas which began limited production in the third quarter of 2019. ICM operates the facility under a management contract and managed the initial construction of the facility, while the Company provides corn origination, ethanol marketing, and risk management services. The Company fully consolidates ELEMENT's results in the Company's financial statements.

Plant Nutrient

The Plant Nutrient Group is a leading manufacturer, distributor and retailer of agricultural and related plant nutrients, corncobbased products, and pelleted lime and gypsum products in the U.S. Corn Belt and Puerto Rico. The group provides warehousing, packaging and manufacturing services to basic nutrient producers and other distributors. The group also manufactures and distributes a variety of industrial products throughout the U.S. and Puerto Rico including nitrogen reagents for air pollution control systems used in coal-fired power plants, and water treatment and dust abatement products.

In its plant nutrient businesses, the Company competes with regional and local cooperatives, wholesalers and retailers, predominantly publicly owned manufacturers and privately-owned retailers, wholesalers and importers. Some of these competitors are also suppliers and have considerably larger resources than the Company. Competition in the nutrient business is based largely on depth of product offering, price, location and service. Sales and warehouse shipments of agricultural nutrients are heaviest in the spring and fall.

As of January 1, 2020, the group reorganized into the three divisions listed below:

Ag Supply Chain - The Ag Supply Chain business provides wholesale nutrients and farm services focused primarily in the Eastern Corn Belt. The wholesale nutrients part of the business stores and distributes dry and liquid agricultural nutrients, and soil amendments. The major nutrient products sold principally contain nitrogen, phosphate, potassium and sulfur which are typically bought and sold as commodities. The farm centers offer a variety of essential crop nutrients, crop protection chemicals and seed products in addition to application and agronomic services to commercial and family farmers. Soil and tissue sampling along with global satellite assisted services provide for pinpointing crop or soil deficiencies and prescriptive agronomic advice is provided to farmers.

Engineered Granules - The Engineered Granules business manufactures and distributes proprietary professional lawn care products that are primarily sold into the golf course and professional turf care markets, serving both U.S. and international customers. These products are sold both directly and through distributors to golf courses and lawn service applicators. The Company also performs contract manufacturing services to sell fertilizer and weed and pest control products to various markets as well as the manufacturing of pelleted lime, gypsum and value add soil amendments. Additionally, corncob-based products are manufactured for a variety of uses including laboratory animal bedding and private-label cat litter, as well as absorbents, blast cleaners, carriers and polishers. The products are distributed throughout the United States and Canada and into Europe and Asia. The principal sources for corncobs are seed corn producers.

<u>Specialty Liquids</u> - The Specialty Liquids business manufacturers specialty ag liquids, seed starters and zinc as well as a manufacturer of industrial liquids. The business has a diverse portfolio of specialty products which support more sustainable farming practices and command higher margins.

Rail

The Company's Rail segment leases various types of railcars and locomotives. In addition, Rail operates a nationwide network for railcar repair shops servicing third party railcars as well as its own. Lastly, Rail offers fleet management services to private railcar owners.

The Company has a diversified fleet of car types (boxcars, gondolas, covered and open top hopper cars, tank cars and pressure differential cars), locomotives and barges serving a broad customer base. The Company operates in both the new and used car markets, allowing the Company to diversify its fleet both in terms of car types, industries and age of cars, as well as repairing and refurbishing used cars for specific markets and customers.

A significant portion of the railcars, locomotives and barges managed by the Company are included on the balance sheet as long-lived assets. The others are either included as leases (with the Company leasing assets from financial intermediaries and leasing those same assets to the end-users) or non-recourse arrangements (in which the Company is not subject to any lease arrangement related to the assets but provides management services to the owner of the assets). The Company generally holds purchase options on most assets owned by financial intermediaries. The Company is under contract to provide maintenance services for many of the Rail assets that we own or manage. Refer to Item 2. Properties below for a breakdown of our railcar, locomotive and barge positions at December 31, 2020.

Competition for marketing and fleet maintenance services is based primarily on price, service ability, and access to both used equipment and third-party financing. Repair facility competition is based primarily on price, quality and location.

Other

The Company's "Other" activities include corporate income, a small corporate venture fund and expense and cost for functions that provide support and services to the operating segments. The results include expenses and benefits not allocated to the operating segments, including a portion of our Enterprise Resource Planning ("ERP") project.

Human Capital Resources and Management

As of December 31, 2020, the company had a total of 2,359 employees across its Ethanol, Trade, Plant Nutrient, and Rail business segments and Corporate Services function. This total was comprised of 871 salary, 1,358 hourly, and 130 seasonal employees who conducted work at 141 locations across the U.S., Canada, United Kingdom and Singapore. Ninety of the Company's locations included less than 10 employees.

- Recruiting: Talent acquisition efforts target both internal and external candidates. The Company advertises opportunities on large online job boards, state job boards and various targeted diversity job boards, as well as geographically specific media channels. The Company strives to find candidates where they are to generate a diverse talent pool. It also engages in campus recruiting efforts for entry level professional talent, internships and professional development programs.
- Focus on Safety: Maintaining a high standard of employee safety is paramount to the Company's core values. Systems and technology have been implemented to support the Company's safety initiative, maintain a safe working environment and foster a culture of personal accountability. As a part of our employee onboarding process, employees are required to complete core safety courses. A yearly training calendar is followed to ensure timely completion of annual safety training. In 2020, the Company advanced its safety program by identifying and focusing on high-risk work that has the potential of causing serious injury or fatality.
- Employee Engagement: The Company maintains an open-door policy that encourages candid conversations between employees and any level of leadership about job-related concerns without fear of reprisal. It regularly solicits employee feedback through informal pulse surveys and formal engagement surveys. It also communicates with employees on a weekly, monthly and quarterly basis through electronic newsletters, town halls, its intranet site and small group meetings with the CEO.
- <u>Talent Development</u>: The Company offers several resources to help employees expand their business knowledge and leadership skills. It hosts a Foundations of Leadership training course to newly appointed supervisors. It also offers a learning management system which houses numerous online courses, videos, audiobooks and podcasts that are available to all employees on demand. Additionally, several in-person trainings are led by internal staff.
- <u>Health and Wellness</u>: The Company partners with a wellness vendor to offer a comprehensive Healthy Lifestyles program to employees and their spouses. The program uses rewards and incentives to encourage participants to take the necessary steps to manage their health and wellness. The program was recently expanded to offer a prediabetes program, personal e-coaching with a licensed health professional and financial wellness webinars.
- <u>Compensation and Benefits</u>: The Company offers market competitive employee compensation and benefits programs. Benefits include a health care benefits, dental and vision benefits, disability and life insurance coverages and other a la carte voluntary benefit offerings. Company leave policies include domestic and sexual violence leave, family and medical leave, parental leave and military leave.

- <u>Community Involvement</u>: The Company believes strongly in sharing its time, talent and financial resources to help improve and sustain the quality of life in its communities. It has contributed a portion of its operating income to community organizations every year since its founding in 1947. The Company also encourages employees to share their time and gifts through volunteerism, participation in its annual workplace giving campaign and gift match program.
- COVID-19: In 2020, the Company took several compensation and operational actions to protect employees and assist with the financial impact of the COVID-19 pandemic. A task force comprised of company leadership, human resources, and environment health and safety professionals was established to monitor the crisis. As an essential business, changes were made to work processes to comply with local, state and federal health requirements, including masks, social distancing and the physical redesign of spaces. The Company implemented a remote and flexible work policy for all non-essential personnel and extended sick pay benefits to accommodate all employees affected by the virus, including those required to quarantine due to close contacts. The Corporate Leadership Team, comprising of the CEO and his direct reports, took temporary pay reductions. Additionally, the Board of Directors reduced their annual retainer for the 2020-2021 board year. The Compensation Committee approved additional funding to the Company's Cash Profit Sharing Program, which is the short-term cash bonus plan for hourly employees. The Compensation Committee also approved funding of the Annual Incentive Plan discretionary pool to reward employees for extraordinary efforts through the COVID-19 crisis.

Government Regulation

Grain sold by the Company must conform to official grade standards imposed under a federal system of grain grading and inspection administered by the United States Department of Agriculture ("USDA").

The production levels, markets and prices of the grains that the Company merchandises are affected by United States government programs, which include acreage control and price support programs of the USDA. In regard to our investments in ethanol production facilities, the U.S. government has mandated a ten percent blend for motor fuel gasoline sold.

The U.S. Food and Drug Administration ("FDA") has developed bioterrorism prevention regulations for food facilities, which require that the Company registers its grain operations with the FDA, provide prior notice of any imports of food or other agricultural commodities coming into the United States and maintain records to be made available upon request that identifies the immediate previous sources and immediate subsequent recipients of its grain commodities.

The Company, like other companies engaged in similar businesses, is subject to a multitude of federal, state and local environmental protection laws and regulations including, but not limited to, laws and regulations relating to air quality, water quality, pesticides and hazardous materials. The provisions of these various regulations could require modifications of certain of the Company's existing facilities and could restrict the expansion of future facilities or significantly increase the cost of their operations. Compliance with environmental laws and regulations did not materially affect the Company's earnings or competitive position in 2020. In each of the countries in which we operate, we are subject to a variety of laws and regulations governing various aspects of our business, including general business regulations as well as those governing the manufacturing, handling, storage, transport, marketing and sale of our products. These include laws and regulations relating to facility licensing and permitting, food and feed safety, the handling and production of regulated substances, nutritional and labeling requirements, global trade compliance and other matters.

Available Information

The Company's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are filed with the Securities and Exchange Commission (the "SEC"). The Company is subject to the informational requirements of the Exchange Act and files or furnishes reports, proxy statements and other information with the SEC. Such reports and other information filed by the Company with the SEC are available free of charge at https://theandersonsinc.gcs-web.com/financial-information/sec-filings when such reports are available on the SEC's website. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov. The Company periodically provides other information for investors on its corporate website, www.andersonsinc.com, and its investor relations website, https://theandersonsinc.gcs-web.com. This includes press releases and other information about financial performance, information on corporate governance and details related to the Company's annual meeting of shareholders. The information contained on the websites referenced in this Form 10-K is not incorporated by reference into this filing. Further, the Company's references to website URLs are intended to be inactive textual references only.

Item 1A. Risk Factors

The Company's operations are subject to risks and uncertainties that could cause actual results to differ materially from those discussed in this Form 10-K and could have a material adverse impact on our financial results. The risks described below are not the only risks facing us. Additional risks and uncertainties not currently known to us or those we currently view to be immaterial may also materially and adversely affect our business, financial condition or results of operations. These risks can be impacted by factors beyond our control. The following risk factors should be read carefully in connection with evaluating our business and the forward-looking statements contained elsewhere in this Form 10-K.

Risks Related to our Business and Industry

The Company's business, results of operations, financial condition and stock price have been adversely affected and could in the future be materially adversely affected by the COVID-19 pandemic.

The novel strain of coronavirus ("COVID-19") has spread rapidly throughout the world, prompting governments and businesses to take unprecedented measures in response. Such measures have included restrictions on travel and business operations, temporary closures of businesses, quarantine requirements and shelter-in-place orders. The COVID-19 pandemic has significantly curtailed global economic activity and caused significant volatility and disruption in global financial markets.

The COVID-19 pandemic and the measures taken by many countries in response have adversely affected and could in the future materially adversely impact the Company's business, results of operations, financial condition and stock price. Following the initial outbreak of the virus, the Company experienced disruptions in ethanol demand as a result of the stay at home orders enforced throughout the year limiting travel. The Company has been designated a key infrastructure company by the U.S. Cybersecurity and Infrastructure Security Agency which has resulted in the Company's facilities to remain open under the appropriate government guidelines to protect public health and the health and safety of employees and customers. The Company has at times required substantially all of its administrative employees to work remotely.

The Company is continuing to monitor the situation and has taken actions in accordance with the recommendations and requirements of relevant authorities. The full extent of the impact of the COVID-19 pandemic on the Company's operational and financial performance is currently uncertain and will depend on many factors outside the Company's control, including, without limitation, the timing, extent, trajectory and duration of the pandemic, the development and availability of effective treatments and vaccines, the imposition of and compliance with protective public safety measures, and the impact of the pandemic on the global economy. Additional future impacts on the Company may include, but are not limited to, material adverse effects on: demand for the Company's products and services; the Company's supply chain and sales and distribution channels; the Company's ability to execute its strategic plans; and the Company's profitability and cost structure.

To the extent the COVID-19 pandemic adversely affects the Company's business, results of operations, financial condition and stock price, it may also have the effect of heightening many of the other risks described in this Part I, Item 1A of this Form 10-K.

Certain of our business segments are affected by the supply and demand of commodities and are sensitive to factors outside of our control. Adverse price movements could negatively affect our profitability and results of operations.

Our Trade, Ethanol and Plant Nutrient businesses buy, sell and hold inventories of agricultural input and output commodities, some of which are readily traded on commodity futures exchanges. Unfavorable weather conditions, both local and worldwide, as well as other factors beyond our control, can affect the supply and demand of these commodities and expose us to liquidity pressures to finance hedges in the commodity business in rapidly rising markets. In our Plant Nutrient business, changes in the supply and demand of these commodities can also affect the value of inventories that we hold, as well as the price of raw materials as we are unable to effectively hedge these commodities. Increased costs of inventory and prices of raw material would decrease our profit margins and adversely affect our results of operations.

Corn - The principal raw material used to produce ethanol and co-products is corn. As a result, an increase in the price of corn in the absence of a corresponding increase in petroleum-based fuel prices will typically decrease ethanol margins thus adversely affecting financial results in the Ethanol Group. At certain levels, corn prices may make ethanol uneconomical to produce for fuel markets. The price of corn is influenced by weather conditions and other factors affecting crop yields, shifts in acreage allocated to corn versus other major crops and general economic and regulatory factors. These factors include government policies and subsidies with respect to agriculture and international trade, and global and local demand and supply. The significance and relative effect of these factors on the price of corn is difficult to predict. Any event that tends to negatively affect the supply of corn, such as adverse weather or crop disease, could increase corn prices and adversely impact income. In addition, we may also have difficulty, from time to time, in physically sourcing corn on economical terms due to supply shortages. High costs or shortages could require us to suspend ethanol operations until corn is available on economical terms, which would have an adverse effect on operating results.

Commodities - While we attempt to manage the risk associated with agricultural commodity price changes for our commodity inventory positions with derivative instruments, including purchase and sale contracts, we are unable to offset 100% of the price risk of each transaction due to timing, availability of futures and options contracts and third-party credit risk. Furthermore, there is a risk that the derivatives we employ will not be effective in offsetting all of the risks that we are trying to manage. This can happen when the derivative and the underlying value of grain inventories and purchase and sale contracts are not perfectly matched. Our commodity derivatives, for example, do not perfectly correlate with the basis component of our commodity inventory and contracts. Basis is defined as the difference between the local cash price of a commodity and the corresponding exchange-traded futures price. Differences can reflect time periods, locations or product forms. Although the basis component is smaller and generally less volatile than the futures component of our grain market price, basis moves on a large commodity position can significantly impact the profitability of the Trade business.

Our futures, options and over-the-counter contracts are subject to margin calls. If there are large movements in the commodities market, we could be required to post significant levels of margin deposits, which would impact our liquidity. There is no assurance that the efforts we have taken to mitigate the impact of the volatility of the prices of commodities upon which we rely will be successful and any sudden change in the price of these commodities could have an adverse effect on our business and results of operations.

Natural gas - We rely on third parties for our supply of natural gas, which is consumed in the drying of wet grain, manufacturing of certain lawn products, pelleted lime and gypsum, and manufacturing of ethanol. The prices for and availability of natural gas are subject to market conditions. These market conditions often are affected by factors beyond our control such as higher prices resulting from colder than average weather and overall economic conditions. Significant disruptions in the supply of natural gas could impair the operations of the ethanol facilities. Furthermore, increases in natural gas prices or changes in our natural gas costs relative to natural gas costs paid by competitors may adversely affect future results of operations and financial position.

<u>Gasoline and oil</u> - We market ethanol as a fuel additive to reduce vehicle emissions from gasoline, as an octane enhancer to improve the octane rating of gasoline with which it is blended and as a substitute for petroleum-based gasoline. As a result, ethanol prices will be influenced by the supply and demand for gasoline and oil and our future results of operations and financial position may be adversely affected if gasoline and oil demand or price changes.

<u>Frac Sand</u> - In our Trade business we own a frac sand processing, logistics, and transloading operation. Frac sand is a proppant used in the completion and re-completion of natural gas and oil wells through hydraulic fracturing. Frac sand is the most commonly used proppant and is less expensive than ceramic proppant, which is also used in hydraulic fracturing to stimulate and maintain oil and natural gas production. A significant shift in demand from frac sand to other proppants, such as ceramic proppants, could have a material adverse effect on our financial condition and results of operations based on the geography of our operations. Additionally, the frac sand business is significantly influenced by the demand in oil. Accordingly, a shift in demand of oil can have a material adverse effect on our financial condition and results of operations. The development and use of other effective alternative proppants, or the development of new processes to replace hydraulic fracturing altogether, could also cause a decline in demand for the frac sand we process and transload and could have a material adverse effect on our financial condition and results of operations.

<u>Potash, phosphate and nitrogen</u> - Raw materials used by the Plant Nutrient business include potash, phosphate and nitrogen, for which prices can be volatile and are driven by global and local supply and demand factors. Significant increases in the price of these commodities may result in lower customer demand and higher than optimal inventory levels. In contrast, reductions in the price of these commodities may create lower of cost or net realizable value adjustments to inventories.

Some of our business segments operate in highly regulated industries. Changes in government regulations or trade association policies could adversely affect our results of operations.

Many of our business segments are subject to government regulation and regulation by certain private sector associations, compliance with which can impose significant costs on our business. Other regulations are applicable generally to all our businesses and corporate functions, including, without limitation, those promulgated under the Internal Revenue Code, the Affordable Care Act, the Employee Retirement Income Security Act and other employment and health care related laws, federal and state securities laws, and the US Patriot Act. Failure to comply with such regulations can result in additional costs, fines or criminal action.

A significant part of our operations is regulated by environmental laws and regulations, including those governing the labeling, use, storage, discharge and disposal of hazardous materials. Because we use and handle hazardous substances in our businesses, changes in environmental requirements or an unanticipated significant adverse environmental event could have an adverse effect on our business. We cannot assure that we have been, or will at all times be, in compliance with all environmental requirements, or that we will not incur costs or liabilities in connection with these requirements. Private parties, including current and former employees, could bring personal injury or other claims against us due to the presence of, or exposure to, hazardous substances used, stored or disposed of by us, or contained in our products. We are also exposed to residual risk because some of the facilities and land which we have acquired may have environmental liabilities arising from their prior use. In addition, changes to environmental regulations may require us to modify our existing plant and processing facilities which could significantly increase the cost of those operations.

Trade and Ethanol businesses - In our Trade and Ethanol businesses, agricultural production and trade flows can be affected by government programs and legislation. Production levels, markets and prices of the commodities we merchandise can be affected by U.S. government programs, which include acreage controls and price support programs administered by the USDA and required levels of ethanol in gasoline through the Renewable Fuel Standards as administered by the Environmental Protection Agency ("EPA"). Other examples of government policies that can have an impact on our business include tariffs, taxes, duties, subsidies, import and export restrictions, outright embargoes and price controls on agricultural commodities. Because a portion of our commodity sales are to exporters, the imposition of export restrictions and other foreign countries' regulations could limit our sales opportunities and create additional credit risk associated with export brokers if shipments are rejected at their destination.

International trade disputes can adversely affect agricultural commodity trade flows by limiting or disrupting trade between countries or regions. Trade disputes can lead to the implementing of tariffs on commodities in which we merchandise or otherwise use in our operations. This can lead to significant volatility in commodity prices, disruptions in historical trade flows and shifts in planting patterns in the Company's geographic footprint, which would present challenges and uncertainties for our business. The imposition of new tariffs or uncertainty around future tariff levels can cause significant fluctuations in the futures and basis levels of agricultural commodities, impacting our earnings. We cannot predict the effects that future trade policy or the terms of any negotiated trade agreements and their impact on our business.

Plant Nutrient - Our Plant Nutrient business manufactures certain agricultural nutrients and uses potentially hazardous materials. All products containing pesticides, fungicides and herbicides must be registered with the EPA and state regulatory bodies before they can be sold. The inability to obtain or the cancellation of such registrations could have an adverse impact on our business. In the past, regulations governing the use and registration of these materials have required us to adjust the raw material content of our products and make formulation changes. Future regulatory changes may have similar consequences. Regulatory agencies, such as the EPA, may at any time reassess the safety of our products based on new scientific knowledge or other factors. If it were determined that any of our products were no longer considered to be safe, it could result in the amendment or withdrawal of existing approvals, which, in turn, could result in a loss of revenue, cause our inventory to become obsolete or give rise to potential lawsuits against us. Consequently, changes in existing and future government or trade association polices may restrict our ability to do business and cause our financial results to suffer.

<u>Rail</u> - Our Rail business is subject to regulation by the American Association of Railroads and the Federal Railroad Administration. These agencies regulate rail operations with respect to health and safety matters. New regulatory rulings could negatively impact financial results through higher maintenance costs or reduced economic value of railcar assets.

The Rail business is also subject to risks associated with the demands and restrictions of the Class I railroads, a group of rail companies owning a high percentage of the existing rail lines. These companies exercise a high degree of control over whether private railcars can be allowed on their lines and may reject certain railcars or require maintenance or improvements to the railcars. This presents risk and uncertainty for our Rail business and it can increase maintenance costs. In addition, a shift in the railroads' strategy to investing in new railcars and improvements to existing railcars, instead of investing in locomotives and infrastructure, could adversely impact our business by causing increased competition and creating an oversupply of railcars. Our rail fleet consists of a range of railcar types (boxcars, gondolas, covered and open top hoppers, tank cars and pressure differential cars) and locomotives. However, a large concentration of a particular type of railcar could expose us to risk if demand were to decrease for that railcar type. Failure on our part to identify and assess risks and uncertainties such as these could negatively impact our business.

Demand for railcars closely follows general economic activity and may be adversely affected by recession and general economic or sector related slowdowns.

We are required to carry significant amounts of inventory across all of our businesses. If a substantial portion of our inventory becomes damaged or obsolete, its value would decrease, and our profit margins would suffer.

We are exposed to the risk of a decrease in the value of our inventories due to a variety of circumstances in all of our businesses. For example, within our Trade and Ethanol businesses, there is the risk that the quality of our inventory could deteriorate due to damage, moisture, insects, disease or foreign material. If the quality of our inventory were to deteriorate below an acceptable level, the value of our inventory could decrease significantly. In our Plant Nutrient business, planted acreage, and consequently the volume of fertilizer and crop protection products applied, is partially dependent upon government programs and the producer's perception of demand. Technological advances in agriculture, such as genetically engineered seeds that resist disease and insects, or that meet certain nutritional requirements, could also affect the demand for our crop nutrients and crop protection products. Either of these factors could render some of our inventory obsolete or reduce its value. Within our rail repair business, major design improvements to loading, unloading and transporting of certain products can render existing (especially old) equipment obsolete.

Our substantial indebtedness could negatively affect our financial condition, decrease our liquidity and impair our ability to operate the business.

If cash on hand is insufficient to pay our obligations or margin calls as they come due at a time when we are unable to draw on our credit facility, it could have an adverse effect on our ability to conduct our business. Our ability to make payments on and to refinance our indebtedness will depend on our ability to generate cash in the future. Our ability to generate cash is dependent on various factors. These factors include general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. Certain of our long-term borrowings include provisions that require minimum levels of working capital and equity and impose limitations on additional debt. Our ability to satisfy these provisions can be affected by events beyond our control, such as the demand for and the fluctuating price of commodities. Although we are and have been in compliance with these provisions, noncompliance could result in default and acceleration of long-term debt payments.

We face increasing competition and pricing pressure from other companies in our industries. If we are unable to compete effectively with these companies, our sales and profit margins would decrease, and our earnings and cash flows would be adversely affected.

The markets for our products in each of our business segments are highly competitive. While we have substantial operations in certain of the regions where we operate, some of our competitors are significantly larger, compete in wider markets, have greater purchasing power, and have considerably larger financial resources. We also may enter into new markets where our brand is not recognized and in which we do not have an established customer base. Competitive pressures in all of our businesses could affect the price of, and customer demand for, our products, thereby negatively impacting our profit margins and resulting in a loss of market share.

Our Trade and Ethanol businesses use derivative contracts to reduce volatility in the commodity markets. Non-performance by the counter-parties to those contracts could adversely affect our future results of operations and financial position.

A significant amount of purchases and sales within the Trade and Ethanol segment are made through forward contracting. In addition, the Company uses exchange traded and, to a lesser degree, over-the-counter contracts to reduce volatility in changing commodity prices. A significant adverse change in commodity prices could cause a counter-party to one or more of our derivative contracts to not perform on its obligation.

Adverse weather conditions, including as a result of climate change, may adversely affect the availability, quality and price of agricultural commodities and agricultural commodity products, as well as our operations and operating results.

Adverse weather conditions have historically caused volatility in the agricultural commodity industry and consequently in our operating results by causing crop failures or significantly reduced harvests, which may affect the supply and pricing of the agricultural commodities that we sell and use in our business, reduce demand for our fertilizer products and negatively affect the creditworthiness of agricultural producers who do business with us. A significant portion of the Company's assets are exposed to conditions in the Eastern Corn Belt. In this region, adverse weather during the fertilizer application, planting, and harvest seasons can have negative impacts on our Trade, Ethanol and Plant Nutrient businesses. Higher basis levels or adverse crop conditions in the Eastern Corn Belt can increase the input costs or lower the market value of our products relative to other market participants that do not have the same geographic concentration.

Additionally, the potential physical impacts of climate change are uncertain and may vary by region. These potential effects could include changes in rainfall patterns, water shortages, changing sea levels, changing storm patterns and intensities, and changing temperature levels that could adversely impact our costs and business operations, the location, costs and competitiveness of agricultural commodity production and related storage and processing facilities and the supply and demand for agricultural commodities. These effects could be material to our results of operations, liquidity or capital resources.

General Risk Factors

We rely on a limited number of suppliers for certain of our raw materials and other products and the loss of one or several of these suppliers could increase our costs and have a material adverse effect on any one of our business segments.

We rely on a limited number of suppliers for certain of our raw materials and other products. If we were unable to obtain these raw materials and products from our current vendors, or if there were significant increases in our supplier's prices, it could significantly increase our costs and reduce our profit margins.

We are subject to global and regional economic downturns and related risks.

The level of demand for our products is affected by global and regional demographic and macroeconomic conditions, including population growth rates and changes in standards of living. A significant downturn in global economic growth, or recessionary conditions in major geographic regions, may lead to reduced demand for agricultural commodities and food products, which could adversely affect our business and results of operations. The pace of economic improvement is uncertain especially given the current global pandemic caused by COVID-19 and there can be no assurance that economic and/or political conditions will not continue to affect market and consumer confidence or deteriorate further in the near term.

The Company may not be able to effectively integrate businesses it acquires.

We continuously look for opportunities to enhance our existing businesses through strategic acquisitions. The process of integrating an acquired business into our existing business and operations may result in unforeseen operating difficulties and expenditures as well as require a significant amount of management resources. There is also the risk that our due diligence efforts may not uncover significant business flaws or hidden liabilities. In addition, we may not realize the anticipated benefits of an acquisition and they may not generate the anticipated financial results. Additional risks may include the inability to effectively integrate the operations, products, technologies and personnel of the acquired companies. The inability to maintain uniform standards, controls, procedures and policies would also negatively impact operations.

If our goodwill or amortizable intangible assets become impaired, then we could be required to record a significant charge to earnings.

GAAP requires us to test for goodwill impairment at least annually. In addition, we review our tangible and intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill or amortizable intangible assets may not be recoverable include prolonged declines in stock price, market capitalization or cash flows, and slower growth rates in our industry. Depending on the results of our review, we could be required to record a significant charge to earnings in our Consolidated Financial Statements during the period in which any impairment of our goodwill or amortizable intangible assets were determined, negatively impacting our results of operations.

Our business involves considerable safety risks. Significant unexpected costs and liabilities would have an adverse effect on our profitability and overall financial position.

Due to the nature of some of the businesses in which we operate, we are exposed to significant operational hazards such as grain dust explosions, fires, malfunction of equipment, abnormal pressures, blowouts, pipeline and tank ruptures, chemical spills or run-off, transportation accidents and natural disasters. Some of these operational hazards may cause personal injury or loss of life, severe damage to or destruction of property and equipment or environmental damage and may result in suspension of operations and the imposition of civil or criminal penalties. If grain dust were to explode at one of our elevators, if an ethanol plant were to explode or catch fire, or if one of our pieces of equipment were to fail or malfunction due to an accident or improper maintenance, it could put our employees and others at serious risk.

The Company's information technology systems may impose limitations or failures, or may face external threats, which may affect the Company's ability to conduct its business.

The Company's information technology systems, some of which are dependent on services provided by third parties, provide critical data connectivity, information and services for internal and external users. These interactions include, but are not limited to, ordering and managing materials from suppliers, converting raw materials to finished products, inventory management, shipping products to customers, processing transactions, summarizing and reporting results of operations, complying with regulatory, legal or tax requirements, human resources and other processes necessary to manage the business. The Company has put in place business continuity plans for its critical systems. However, if the Company's information technology systems are damaged, or cease to function properly due to any number of causes, such as catastrophic events or power outages, and the Company's business continuity plans do not allow it to effectively recover on a timely basis, the Company may suffer interruptions in the ability to manage its operations, which may adversely impact the Company's operating results. Our security measures may also be breached due to employee error, malfeasance, or otherwise. In addition, although the systems continue to be refreshed periodically, portions of the infrastructure are outdated and may not be adequate to support new business processes, accounting for new transactions, or implementation of new accounting standards if requirements are complex or materially different than what is currently in place.

Additionally, outside parties may attempt to destroy critical information, or fraudulently induce employees, third-party service providers, or users to disclose sensitive information to gain access to our data or our users' data. As a response, the Company requires user names and passwords to access its information technology systems. The Company also uses encryption and authentication technologies designed to secure the transmission and storage of data and prevent access to Company and user data or accounts. The Company also conducts tests and assessments using independent third parties on a regular basis. As with all companies, these security measures are subject to third-party security breaches, employee error, malfeasance, faulty password management, or other irregularities. We cannot assure our ability to prevent, repel or mitigate the effects of such an attack by outside parties. The Company also relies on third parties to maintain and process certain information which could be subject to breach or unauthorized access to Company or employee information. Any such breach or unauthorized access could result in an inability to perform critical functions, significant legal and financial exposure, damage to our reputation, and a loss of confidence in the security of our services that could potentially have an adverse effect on our business.

The Company's design and implementation of its Enterprise Resource Planning system could face significant difficulties.

The Company is designing and implementing ERP systems, requiring significant capital and human resources to deploy. There is risk of such implementations being more expensive and taking longer to fully implement than originally planned, resulting in increased capital investment, higher fees and expenses of third parties, delayed deployment scheduling, and more on-going maintenance expense once implemented, and, as such, the ultimate costs and schedules are not yet known. If for any reason portions of the implementation are not successful, the Company could be required to expense rather than capitalize related amounts. Beyond cost and scheduling, potential flaws in the implementation of an ERP system may pose risks to the Company's ability to operate successfully and efficiently. These risks include, without limitation, inefficient use of employees, distractions to the Company's core businesses, adverse customer reactions, loss of key information, delays in decision making, as well as unforeseen additional costs due to the inability to integrate vital information processes.

Unauthorized disclosure of sensitive or confidential customer information could harm the Company's business and standing with our customers.

The protection of our customer, employee and Company data is critical to us. The Company relies on commercially available systems, software, tools and monitoring to provide security for processing, transmission and storage of confidential customer information, such as payment card and personal information. The Company also conducts annual tests and assessments using independent third parties. Despite the security measures the Company has in place, its facilities and systems, and those of its third-party service providers, may be vulnerable to security breaches, acts of vandalism, computer viruses, misplaced or lost data, programming or human errors, or other similar events. Any security breach involving the misappropriation, loss or other unauthorized disclosure of confidential information, whether by the Company or its vendors, could damage our reputation, expose us to risk of litigation and liability, disrupt our operations and harm our business.

A change in tax laws or regulations of any federal, state or international jurisdiction in which we operate could increase our tax burden and otherwise adversely affect our financial position, results of operations, cash flows and liquidity.

We continue to assess the impact of various U.S. federal, state, local and international legislative proposals that could result in a material increase to our U.S. federal, state, local and/or international taxes. We cannot predict what impact, if any, changes in federal policy, including tax policies, as a result of recent U.S. federal elections will have on our industry or whether any specific legislation will be enacted or the terms of any such legislation. However, if such proposals were to be enacted, or if modifications were to be made to certain existing regulations, the consequences could have a material adverse impact on us, including increasing our tax burden, increasing our cost of tax compliance or otherwise adversely affecting our financial position, results of operations, cash flows and liquidity. Changes in applicable U.S. or foreign tax laws and regulations, or their interpretation and application, including the possibility of retroactive effect, could affect our tax expense and profitability as they did in 2017 upon passage of the Tax Cuts and Jobs Act. Such impact may also be affected positively or negatively by subsequent potential judicial interpretation or related regulation or legislation which cannot be predicted with certainty.

We are subject to various legal and regulatory proceedings, including litigation in the ordinary course of business, and uninsured judgments or a rise in insurance premiums may adversely impact our business, financial condition and results of operations.

In the ordinary course of business, we are subject to various legal and regulatory proceedings, which may include but are not limited to those involving antitrust, tax, environmental, intellectual property, data privacy and other matters, including general commercial litigation. Any claims raised in legal and regulatory proceedings, whether with or without merit, could be time consuming and expensive to defend and could divert management's attention and resources. Additionally, the outcome of legal and regulatory proceedings may differ from our expectations because the outcomes of these proceedings are often difficult to predict reliably. Various factors and developments can lead to changes in our estimates of liabilities and related insurance receivables, where applicable, or may require us to make additional estimates, including new or modified estimates that may be appropriate due to a judicial ruling or judgment, a settlement, regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in charges that could have a material adverse effect on our results of operations in any particular period.

In accordance with customary practice, we maintain insurance against some, but not all, of these potential claims. In the future, we may not be able to maintain insurance at commercially acceptable premium levels. In addition, the levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. If any significant judgment or claim is not fully insured or indemnified against, it could have a material adverse impact on our business, financial condition and results of operations.

Item 1B. Unresolved Staff Comments

The Company has no unresolved staff comments.

Item 2. Properties

The Company's principal agriculture, rail, and other properties are described below. The Company believes that its properties are adequate for its business, well maintained and utilized, suitable for their intended uses and adequately insured.

Agriculture and Ethanol Facilities

	Trade	Ethanol	Plant Nutrient			
(in thousands) Location	Grain Storage (bushels)		Dry Fertilizer Storage (tons)	Liquid Fertilizer Storage (tons)		
Canada	22,578	(gallons)	(tons)	(10113)		
Colorado	1,586		<u> </u>	<u> </u>		
Idaho	16,655	_	_	_		
Illinois	16,164		56	11		
Indiana	21,690	110,000	132	134		
Iowa	, —	55,000	<u>—</u>	65		
Kansas	_	70,000	_	_		
Kentucky	1,410	_	_	_		
Louisiana	24,948	_	_	_		
Michigan	28,572	130,000	66	46		
Minnesota	1,779	_	_	47		
Nebraska	18,414			45		
New York	-	_	_	_		
Ohio	42,151	110,000	182	72		
Puerto Rico	_	_	_	11		
Texas	6,152	_	_	_		
Wisconsin		_	27	78		
	202,099	475,000	463	509		

The Trade facilities are mostly concrete and steel tanks, with some flat storage buildings. The Company also owns grain inspection buildings and dryers, maintenance buildings and truck scales and dumps. Approximately 84% of the total storage capacity noted above, which includes temporary pile storage, is owned, while the remaining 16% of the total capacity is leased from third parties.

The Plant Nutrient properties consist mainly of fertilizer warehouse and formulation and packaging facilities for dry and liquid fertilizers. The Company owns approximately 99% of the dry and liquid storage capacity noted above.

Rail Equipment

Equipment	Number of Units	Percentage of Fleet
Covered Hoppers	14,760	63.6%
Tanks	4,459	19.2%
Gondolas	1,069	4.6%
Open-top Hoppers	836	3.6%
Boxcars	777	3.3%
Pressure Differential Covered Hoppers	771	3.3%
Flat Cars	514	2.2%
Locomotives	23	0.1%
Other	23	0.1%
	23,232	100.0%

The Company's revenue-generating equipment, either owned or long-term leased, consists of freight cars and locomotives as described below.

<u>Covered hoppers</u> - Have a permanent roof and are segregated based upon commodity density. Lighter bulk commodities such as grain, fertilizer, flour, salt, plastics, DDGs and lime are shipped in medium, large and jumbo covered hoppers. Heavier commodities like cement, fly ash, ground limestone and industrial sand are shipped in small cube covered hoppers.

Tanks - Transports liquid and gaseous commodities.

Gondolas - Supports metals markets, coal, aggregates and stone, and provides transport for woodchips and other bulk commodities.

<u>Open-top hoppers</u> - Transports heavy dry bulk commodities such as coal, coke, stone, sand, ores and gravel that are resistant to weather conditions.

<u>Boxcars</u> - Includes a variety of tonnages, sizes, door configurations and heights to accommodate a wide range of finished products, including building materials, metal products, minerals, cement and food products.

<u>Pressure differential covered hoppers</u> - Transports cement, fertilizers, flour, grain products, clay and sand that utilize a pressure differential system on the hopper cars that assists with unloading of the commodities from either side of the car.

Flat cars - Used for shipping bulk and finished goods, such as lumber, steel, pipe, plywood, drywall and pulpwood.

Other cars - Primarily leased refrigerator cars and barges.

Locomotives - Primarily to pull trains.

The Company operates 28 railcar repair facilities throughout the country.

Item 3. Legal Proceedings

The Company is currently subject to various claims and suits arising in the ordinary course of business, which include environmental issues, employment claims, contractual disputes, and defensive counterclaims. The Company accrues liabilities in which litigation losses are deemed probable and estimable. The Company believes it is unlikely that the results of its current legal proceedings, even if unfavorable, will result in material liabilities beyond what it currently has accrued. There can be no assurance, however, that any claims or suits arising in the future, whether taken individually or in the aggregate, will not have a material adverse effect on our financial condition or results of operations.

Item 4. Mine Safety

We are committed to protecting the occupational health and well-being of each of our employees. Safety is one of our core values, and we strive to ensure that safe production is the first priority for all employees. Our internal objective is to achieve zero injuries and incidents across the Company by focusing on proactively identifying needed prevention activities, establishing standards and evaluating performance to mitigate any potential loss to people, equipment, production and the environment. We have implemented intensive employee training that is geared toward maintaining a high level of awareness and knowledge of safety and health issues in the work environment through the development and coordination of requisite information, skills and attitudes. We believe that through these policies, we have developed an effective safety management system.

Under the Dodd-Frank Act, each operator of a coal or other mine is required to include certain mine safety results within its periodic reports filed with the SEC. As required by the reporting requirements included in §1503(a) of the Dodd-Frank Act and Item 104 of Regulation S-K, the required mine safety results regarding certain mining safety and health matters for each of our mine locations that are covered under the scope of the Dodd-Frank Act are included in Exhibit 95 of Item 15. Exhibits and Financial Statement Schedules.

Part II.

<u>Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>

The Common Shares of The Andersons, Inc. trade on the Nasdaq Global Select Market under the symbol "ANDE".

Shareholders

At February 12, 2021, there were 1,034 shareholders of record and approximately 13,291 shareholders for whom security firms acted as nominees.

Dividends

The Company has declared and paid consecutive quarterly dividends since its first year of trading in 1996. Dividends paid from January 2019 to January 2021 are as follows:

Payment Date	Amount
1/23/2019	\$0.170
4/22/2019	\$0.170
7/22/2019	\$0.170
10/22/2019	\$0.170
1/23/2020	\$0.175
4/22/2020	\$0.175
7/22/2020	\$0.175
10/22/2020	\$0.175
1/20/2021	\$0.175

While the Company's objective is to pay a quarterly cash dividend, dividends are subject to Board of Director approval.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Period	Total Number of Shares Purchased (1)	rage Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽²⁾	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
October 2020	3,066	\$ 19.17	<u> </u>	_
November 2020	692	21.78	_	_
December 2020	2,718	24.08		
Total	6,476	\$ 21.51		

⁽¹⁾ During the three months ended December 31, 2020, the Company acquired shares of common stock held by employees who tendered owned shares to satisfy tax withholding obligations.

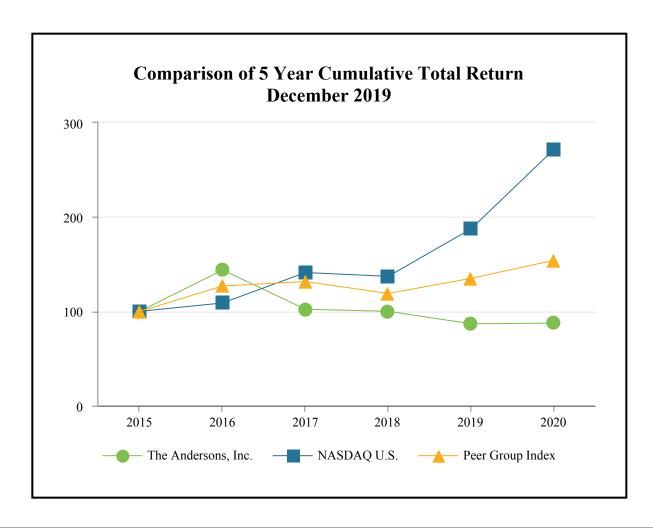
⁽²⁾ No shares were purchased as part of publicly announced plans or programs.

Performance Graph

The graph below compares the total shareholder return on the Company's Common Shares to the cumulative total return for the Nasdaq U.S. Index and a Peer Group Index. The indices reflect the year-end market value of an investment in the stock of each company in the index, including additional shares assumed to have been acquired with cash dividends, if any. The Peer Group Index, weighted for market capitalization, includes the following companies:

Archer-Daniels-Midland Co.	Nutrien Ltd.
GATX Corp.	The Greenbrier Companies, Inc.
Green Plains, Inc.	The Scott's Miracle-Gro Company
Ingredion Incorporated	

The graph assumes a \$100 investment in The Andersons, Inc. Common Shares on December 31, 2015 and also assumes investments of \$100 in each of the Nasdaq U.S. and Peer Group indices, respectively, on December 31 of the first year of the graph. The value of these investments as of the following calendar year-ends is shown in the table below the graph.



	В	ase Period	Cumulative Returns								
	De	cember 31, 2015	2016 2017 2018 2019 2020					2020			
The Andersons, Inc.	\$	100.00	\$ 143.88	\$	102.20	\$	100.03	\$	86.83	\$	87.47
NASDAQ U.S.		100.00	108.87		141.13		137.12		187.44		271.64
Peer Group Index		100.00	126.88		131.59		118.95		134.99		154.05

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward Looking Statements

The following "Management's Discussion and Analysis of Financial Condition and Results of Operations" contains forward-looking statements which relate to future events or future financial performance and involve known and unknown risks, uncertainties and other factors that may cause actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by these forward-looking statements. Without limitation, these risks include economic, weather and regulatory conditions, competition, the COVID-19 pandemic and those listed under Item 1.A, "Risk Factors." The reader is urged to carefully consider these risks and factors. In some cases, the reader can identify forward-looking statements by terminology such as "may", "anticipates", "believes", "estimates", "predicts", or the negative of these terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially. These forward-looking statements relate only to events as of the date on which the statements are made and the Company undertakes no obligation, other than any imposed by law, to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

Executive Overview

Our operations are organized, managed and classified into four reportable business segments: Trade, Ethanol, Plant Nutrient, and Rail. Each of these segments is generally based on the nature of products and services offered and aligns with the management structure.

The agricultural commodity-based business is one in which changes in selling prices generally move in relationship to changes in purchase prices. Therefore, increases or decreases in prices of the commodities that the business deals in will have a relatively equal impact on sales and cost of sales and a much less significant impact on gross profit. As a result, changes in sales between periods may not necessarily be indicative of the overall performance of the business and more focus should be placed on changes in gross profit.

The Company has considered the potential impact of the book value of the Company's total shareholders' equity exceeding the Company's market capitalization for impairment indicators. Management ultimately concluded that, while the Company's shareholders equity exceeded the market capitalization for the period, an impairment triggering event had not occurred. The Company continues to believe that the share price is not an accurate reflection of its current value. While adverse conditions are currently present and pervasive in the agriculture space during this time, the long-term outlook remains positive and management believes that the market's impact on the Company's equity value does not accurately reflect the impact of these external factors on the Company. As a result of prior period and annual impairment tests, reviews of current operating results and other relevant market factors, the Company concluded that no impairment trigger existed as of December 31, 2020. However, continuing adverse market conditions or alternative management decisions on operations may result in future impairment considerations.

Recent Developments

For fiscal year 2020, the global emergence of COVID-19 has had a significant impact on the global economy, including several industries in which the Company operates. Government-mandated stay-at-home orders and other public health mandates and recommendations, as well as behavioral changes in response to the pandemic, have reduced demand for gasoline, ethanol and corn. The reduced demand coupled with a general economic downturn has negatively impacted our Trade, Ethanol and Rail Groups. The Company is continuing to actively manage its response to the COVID-19 pandemic, however, the future impacts of the ongoing pandemic on the Company's business remain uncertain at this time.

The Company is a critical infrastructure industry as defined by The United States Department of Homeland Security, Cybersecurity and Infrastructure Agency, in its March 19, 2020 Memorandum. As COVID-19 continues to spread and certain regions experience accelerated spread or resurgences, the Company is currently conducting business as usual to the greatest extent possible in the current circumstances. The Company is taking a variety of measures to ensure the availability of its services throughout our network, promote the safety and security of our employees, and support the communities in which we operate. Certain modifications the Company has made in response to the COVID-19 pandemic include: implementing working at home protocols for all non-essential support staff; restricting employee business travel; strengthening clean workplace practices; reinforcing socially responsible sick leave recommendations; limiting visitor and third-party access to Company facilities; launching internal COVID-19 resources for employees; creating a pandemic response team comprised of employees and members of senior management; encouraging telephonic and video conference-based meetings along with other hygiene and social distancing practices recommended by health authorities including Health Canada, the U.S. Centers for Disease Control and Prevention, and the World Health Organization; and maintaining employment benefit coverage of employees through the pandemic. The Company is responding to this crisis through measures designed to protect our workforce and prevent disruptions to the Company's operations within the North American agricultural supply chain.

Management has observed many other companies, including those in our supply chain, taking precautionary and preemptive actions to address the COVID-19 pandemic, and companies may take further actions that alter their normal business operations. The Company will continue to actively monitor the situation and may take further actions that could materially alter our business operations as may be required or recommended by federal, provincial, state or local authorities, or that management determines are in the best interests of our employees, customers, shareholders, partners, suppliers, and other stakeholders.

Additional information concerning the impact COVID-19 may have to our future business and results of operations is provided in Part I, Item 1A. Risk Factors.

Trade

The Trade Group's performance reflects an increase in merchandising activity, however, this increase was offset by year over year reductions in income as it pertains to its grain elevator asset and food and specialty ingredients businesses. The reduction in income from the grain elevator asset business was driven by the weak 2019 harvest carryover in the Eastern Corn Belt assets and lower wheat opportunities. Additionally, the food and specialty ingredients business netted lower results that were driven by higher freight costs and lower volumes, a portion of which was due to the impact COVID-19 had on the restaurant industry.

Total grain storage capacity, including temporary pile storage, was approximately 202.1 million bushels as of December 31, 2020 and 206.6 million bushels as of December 31, 2019. Commodity inventories on hand at December 31, 2020 were 142.8 million bushels, of which 3.0 million bushels were stored for others. This compares to 152.8 million bushels on hand at December 31, 2019, of which 6.4 million bushels were stored for others.

Looking forward, the 2020 corn and soybean harvest improved in the Eastern Corn Belt compared to the prior year. Further, export demand has been robust, especially from China, which is expected to continue into the first quarter of 2021. These conditions have led to a significant increase in basis, strong elevation margins and considerable volatility, which will create merchandising opportunities.

Nearby futures prices have continued to rally, creating an inverse in corn and soybean markets. If those conditions persist, they will diminish the opportunity to earn storage income through the first part of 2021. As a result of these factors, the current outlook for the Trade Group is stronger on merchandising but reserved on income from storing grain.

Ethanol

The Ethanol Group's results were significantly impacted by the COVID-19 pandemic as the lack of driving demand created a surplus of both oil and ethanol which drove margins negative for the better part of the year. The reduction in income from the prior year was also attributable to a large one time gain as a result of the TAMH merger. As we move into 2021, the Ethanol Group expects continued margin headwinds from a current unbalanced supply of ethanol and a high corn basis and futures price. These challenges may continue while oil and gasoline demands remain low as a result of the COVID-19 pandemic. Fortunately, the high corn prices are improving coproducts sales as we are able to sell products such as DDGs and corn oil at higher values.

Volumes shipped for the years ended December 31, 2020 and December 31, 2019 were as follows:

	Twelve months ende	d December 31,
(in thousands)	2020	2019
Ethanol (gallons shipped)	592,738	542,146
E-85 (gallons shipped)	27,321	47,708
Corn Oil (pounds shipped)	117,563	48,702
DDG (tons shipped)*	1,850	1,846

^{*} DDG tons shipped converts wet tons to a dry ton equivalent amount. Prior year DDG tons shipped were recast from the Trade Group to the Ethanol Group. See Note 12 in the Consolidated Financial Statements for further details of the recast.

The above table shows only shipped volumes that flow through the Consolidated Financial Statements of the Company. As the Company merged its former unconsolidated LLCs into the consolidated TAMH entity in the fourth quarter of 2019, these consolidated volumes are now included for the fourth quarter of 2019 and the 2020 amounts above. Total ethanol, DDG, and corn oil production by the unconsolidated LLCs in 2019 was actually higher than disclosed above. However, the portion of this volume that was sold from the unconsolidated LLCs directly to their customers for the nine months ended September 30, 2019 is excluded here.

Plant Nutrient

The Plant Nutrient Group's results increased year-over-year due to favorable planting conditions in both the Spring and Fall application seasons compared to the wet and compressed planting season in 2019. Further, the group continues to benefit from cost reduction initiatives and effective working capital management.

Total storage capacity at our ag supply chain and engineered granules businesses was approximately 463 thousand tons for dry nutrients and approximately 509 thousand tons for liquid nutrients at December 31, 2020, which is similar to the prior year.

At January 1, 2020, the group reorganized into three divisions as described below. Prior period amounts below were recast to reflect this change.

Looking forward, the group expects continued improvement in 2021 assuming continued higher commodity prices and another strong planting season.

Tons of product sold for the years ended December 31, 2020 and December 31, 2019 were as follows:

	Twelve months en	ded December 31,
(in thousands)	2020	2019
Ag Supply Chain	1,585	1,312
Specialty Liquids	351	333
Engineered Granules	416	410
Total tons	2,352	2,055

In the table above, Ag Supply Chain represents facilities principally engaged in the wholesale distribution and retail sale and application of primary agricultural nutrients such as bulk nitrogen, phosphorus, and potassium. Specialty Liquid locations produce and sell a variety of low-salt liquid starter fertilizers, micronutrients for agricultural use, and specialty products for use in various industrial processes. Engineered Granules facilities primarily manufacture granulated dry products for use in specialty turf and agricultural applications. and a variety of corncob-based products.

Rail

The Rail segment's results were lower than the prior year. The reduction in earnings was driven by lower average lease rates, lower North American railcar loadings, a reduction in car sales and certain customer defaults particularly in the sand and ethanol markets. The average utilization rate (Rail assets under management that are in lease service, exclusive of those managed for third-party investors) was 88.1% for the year ended December 31, 2020 which was 4.3% lower than the prior year. Rail assets under management (owned, leased or managed for financial institutions in non-recourse arrangements) at December 31, 2020 were 23,232 compared to 24,884 at December 31, 2019.

The COVID-19 pandemic caused the idling of nearly one-third of the North American railcar fleet at one point during the year and has driven year-to-date railcar loadings lower year over year. While we have seen modest improvements in railcar loadings and fewer idled cars, the recovery in 2021 may be slow. Lease rates are expected to stay relatively flat until later into the year.

Other

The Company's "Other" represents corporate functions that provide support and services to the operating segments. The results contained within this group include expenses and benefits not allocated back to the operating segments, including a portion of our ongoing ERP costs.

Results for Fiscal 2019 compared to Fiscal 2018

For comparisons of the Company's consolidated and segment results of operations and consolidated cash flows for the fiscal years ended December 31, 2019 to December 31, 2018, refer to Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of the Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on February 27, 2020.

Operating Results

The following discussion focuses on the operating results as shown in the Consolidated Statements of Operations with a separate discussion by segment. Additional segment information is included in Note 12 to the Company's Consolidated Financial Statements in Item 8.

	Year ended December 31, 2020									
(in thousands)	Trad			Plant Nutrient	Rail		Other		Total	
Sales and merchandising revenues	\$6,141,	402	\$1,260,259	\$	662,959	\$	143,816	\$	_	\$8,208,436
Cost of sales and merchandising revenues	5,863,	186	1,278,526		556,711		105,091		_	7,803,514
Gross profit	278,	216	(18,267)		106,248		38,725			404,922
Operating, administrative and general expenses	244,	147	24,405		85,702		21,512		23,441	399,207
Interest expense (income)	21,	974	7,461		5,805		17,491		(1,456)	51,275
Equity in earnings (losses) of affiliates, net		638	_		_		_		_	638
Other income (expense), net	11,	954	2,795		1,274		2,885		1,540	20,448
Income (loss) before income taxes	24,	687	(47,338)		16,015		2,607		(20,445)	(24,474)
Income (loss) before income taxes attributable to the noncontrolling interests		_	(21,925)		_		_		_	(21,925)
Non-GAAP Income (loss) before income taxes, attributable to the Company	\$ 24,	687	\$ (25,413)	\$	16,015	\$	2,607	\$	(20,445)	\$ (2,549)

	Year ended December 31, 2019						
(in thousands)	Trade	Ethanol	Plant Nutrient	Rail	Other	Total	
Sales and merchandising revenues	\$6,144,526	\$1,211,997	\$ 646,730	\$ 166,938	\$ —	\$8,170,191	
Cost of sales and merchandising revenues	5,815,430	1,179,430	547,626	109,813	_	7,652,299	
Gross profit	329,096	32,567	99,104	57,125	_	517,892	
Operating, administrative and general expenses	276,280	20,639	84,719	27,132	28,072	436,842	
Asset impairment	38,536	_	2,175	_	501	41,212	
Interest expense (income)	34,843	943	7,954	16,486	(535)	59,691	
Equity in earnings (losses) of affiliates, net	(6,835)	(524)	_	_	_	(7,359)	
Other income (expense), net	10,070	37,199	4,903	1,583	1,568	55,323	
Income (loss) before income taxes	(17,328)	47,660	9,159	15,090	(26,470)	28,111	
Income (loss) before income taxes attributable to the noncontrolling interests		(3,247)				(3,247)	
Non-GAAP Income (loss) before income taxes, attributable to the Company	\$ (17,328)	\$ 50,907	\$ 9,159	\$ 15,090	\$ (26,470)	\$ 31,358	

The Company uses Non-GAAP Income (loss) before income taxes, attributable to the Company, a non-GAAP financial measure as defined by the Securities and Exchange Commission, to evaluate the Company's financial performance. This performance measure is not defined by accounting principles generally accepted in the United States and should be considered in addition to, and not in lieu of, GAAP financial measures.

Management believes that Non-GAAP Income (loss) before income taxes, attributable to the Company is a useful measure of the Company's performance because it provides investors additional information about the Company's operations allowing better evaluation of underlying business performance and better period-to-period comparability. This measure is not intended to replace or be an alternative to Income (loss) before income taxes, the most directly comparable amount reported under GAAP.

Comparison of 2020 with 2019

Trade

Operating results for the Trade Group increased \$42.0 million compared to prior year reported results, which included \$38.5 million of asset impairments and \$8.0 million of acquisition related costs. Sales and merchandising revenues decreased \$3.1 million compared to prior year. While the sales and merchandising revenue balances were comparable year over year, cost of sales and merchandising revenues increased by \$47.8 million resulting in a decrease in gross profit of \$50.9 million. The decreased gross profit compared to the prior year was due to a reduction of \$36.4 million in our grain assets business from the carryover effects of a weak 2019 harvest in our Eastern Corn Belt assets and lower wheat carries combined with a \$15.2 million reduction in gross profit related to the shutdown of many of our sand facilities. This was partly offset by stronger merchandising results.

Operating, administrative and general expenses decreased \$32.1 million compared to prior year results. Labor and benefits expenses were lower due to headcount reductions from cost cutting initiatives and the strategic divestiture of certain businesses. Depreciation expense was also lower due to divestitures and impairments of certain asset groups. Additionally, a reduction of \$5.1 million for acquisition-related stock compensation did not recur in 2020.

The Trade Group recorded asset impairment charges of \$38.5 million in 2019. The prior year asset impairment charges include a \$34.8 million impairment of the Company's Frac Sand business following a fundamental shift in the operating environment in the areas we are located and a \$3.7 million charge related to the Company's Tennessee assets, as it disposed of its remaining assets in this region. No such impairments occurred in the current year.

Interest expense decreased \$12.9 million due to the pay down of long-term debt, lower interest rates and lower short-term borrowings for most of the year.

Equity in earnings of affiliates were \$0.6 million in the current year. This resulted in an increase of \$7.5 million as compared to the prior year. This was due to a loss of \$2.5 million and an other-than-temporary impairment charge of approximately \$5.0 million from an investment in 2019

Ethanol

Operating results for the Ethanol Group decreased \$76.3 million from the prior year. Sales and merchandising revenues increased \$48.3 million due to increased volumes resulting primarily from the ELEMENT plant in Colwich, Kansas which commenced operations in the second half of 2019 and cost of sales and merchandising revenues increased \$99.1 million compared to the prior year. As a result, gross profit decreased by \$50.8 million from significantly lower margins and mark-to-market losses as higher corn prices outpaced ethanol price increases. The lower, and often negative, margins were a direct result of the decreased demand resulting from the COVID-19 pandemic.

Operating, administrative and general expenses increased \$3.8 million from the prior year due to the first full year of ELEMENT operations, and the impact of the TAMH merger in October 2019. Prior to the merger, the Company's share of operating, administrative and general expenses would have been recognized in equity earnings. This increase was partially offset by lower labor and incentive compensation costs from cost cutting initiatives.

Interest expense increased \$6.5 million due to the cessation of the capitalization of interest related to the construction of the ELEMENT facility which was completed in 2019.

Other income, net decreased by \$34.4 million from the prior year as a result of a \$35.2 million gain on the pre-existing equity method investments that were given as consideration in the 2019 TAMH merger.

Plant Nutrient

Operating results for Plant Nutrient increased \$6.9 million compared to the prior year. Sales and merchandising revenues increased \$16.2 million and cost of sales and merchandising revenues increased \$9.1 million from increases in volumes from more normal planting conditions. The increases in volumes were slightly offset by lower margins as raw material prices increased. These factors led to an increased gross profit of \$7.1 million from the prior year.

Operating, administrative and general expenses increased \$1.0 million primarily due to higher labor and benefits due to increased overtime and incentive compensation. This was largely offset by lower depreciation from reductions in capital spending and the lack of nonrecurring impairment charges from the prior year.

Interest expense decreased \$2.1 million from reduced working capital usage and lower interest rates in the current year.

Rail

Operating results for Rail decreased \$12.5 million from the prior year. Sales and merchandising revenues decreased \$23.1 million and cost of sales and merchandising revenues decreased \$4.7 million compared to prior year results. The decreased revenues were driven by a decrease of \$15.3 million in leasing revenues due to lower utilization rates with fewer cars on lease and a decrease of \$7.8 million in car sale revenues as the Company sold more cars in 2019.

Operating, administrative and general expenses decreased \$5.6 million due to lower incentives, cost cutting initiatives and more efficient labor costs within the repair business.

Interest expense increased \$1.0 million due to an additional \$2.8 million of interest expense related to the early termination of several interest rate swaps. This was partially offset by lower interest rates and a reduction in outstanding debt.

Other income increased \$1.3 million resulting from more end-of-lease settlements in the current year.

Other

Operating, administrative and general expenses decreased \$4.6 million due to headcount reductions, lower incentive compensation and other cost cutting initiatives. Severance related expense of \$6.1 million associated with the departure of certain executive officers and key employees is also included in 2020 results.

Income Taxes

In 2020, the Company recorded income tax benefit of \$10.3 million at an effective rate of 41.9%. In 2019, the Company recorded income tax expense of \$13.1 million at an effective tax rate of 46.4%. The change in effective tax rate compared to the same period last year was primarily attributed to the tax benefit generated from the current period loss before taxes offset by the effect of non-controlling interest and derivatives instruments and hedging activities, along with the additional benefits from net operating loss carrybacks as a result of the Coronavirus Aid, Relief, and Economic Security ("CARES") Act.

Liquidity and Capital Resources

Working Capital

At December 31, 2020, the Company had working capital of \$484.7 million, a decrease of \$20.7 million from the prior year. This decrease was attributable to changes in the following components of current assets and current liabilities:

(in thousands)	December 31, 202	0 December 31, 2019	Variance
Current Assets:			
Cash, cash equivalents and restricted cash	\$ 29,12	3 \$ 54,895	\$ (25,772)
Accounts receivable, net	659,83	4 536,367	123,467
Inventories	1,300,69	1,170,536	130,157
Commodity derivative assets – current	320,70	6 107,863	212,843
Other current assets	106,05	75,681	30,372
Total current assets	2,416,40	1,945,342	471,067
Current Liabilities:			
Short-term debt	403,70	3 147,031	256,672
Trade and other payables	957,68	873,081	84,602
Customer prepayments and deferred revenue	180,16	133,585	46,575
Commodity derivative liabilities – current	146,99	0 46,942	100,048
Accrued expenses and other current liabilities	167,67	176,381	(8,710)
Current maturities of long-term debt	75,47	62,899	12,576
Total current liabilities	1,931,68	1,439,919	491,763
Working capital	\$ 484,72	505,423	\$ (20,696)

December 31, 2020 current assets increased \$471.1 million in comparison to prior year. The increase was noted in all asset categories except cash. The increases in accounts receivable and inventory balances can largely be attributable to higher commodity prices. Current commodity derivative assets and liabilities, which reflect customers net assets or liabilities based on the value of forward contracts as compared to market prices at the end of the period, show a net increase. The increase in other current assets is due to significant prepaid federal income taxes as a result of the CARES Act. See also the discussion below on additional sources and uses of cash for an understanding of the decrease in cash from prior year.

Current liabilities increased \$491.8 million compared to the prior year largely due to an increase in short-term debt, trade and other payables and commodity derivative liabilities as a result of higher commodity prices.

Sources and Uses of Cash 2020 compared to 2019

Operating Activities and Liquidity

Our operating activities used cash of \$74.4 million in 2020 compared to cash provided by operations of \$348.6 million in 2019. The increase in cash used was primarily due to increases in working capital accounts driven by higher commodity prices, as discussed above, and lower operating results.

Net income taxes of \$2.4 million were paid in 2020 and net income taxes of \$2.0 million were paid in 2019.

Investing Activities

Investing activities used \$86.8 million in 2020 compared to \$325.0 million used in 2019. In addition to the significant cash used for the acquisition of Lansing Trade Group in 2019 the remaining decrease was largely driven by the Company's strategic focus on reduced capital spending to conserve cash as a result of the impacts of COVID-19 in conjunction with efforts to pay down long-term debt. Cash used for the purchases of property, plant, equipment, and capitalized software decreased \$88.1 million primarily due to the previously mentioned strategic efforts as well as significant prior year costs associated with the construction of the bio-refinery facility in 2019.

Purchases of Rail assets were \$27.7 million in the current year compared to \$105.3 million in the prior year as the Company strategically reduced capital spending to focus on paying down long-term debt. Proceeds from the sale of Rail assets were \$10.1 million in 2020 and \$18.1 million in 2019. The decrease is primarily due to fewer railcar portfolio sales. As such, net spend on Rail assets decreased \$69.5 million compared to the prior year.

Capital spending of \$77.1 million for 2020 on property, plant and equipment includes: Trade - \$14.9 million; Ethanol - \$39.8 million; Plant Nutrient - \$16.6 million; Rail - \$4.4 million; and \$1.5 million in corporate / enterprise resource planning project spending.

Proceeds from the sale of assets decreased \$19.5 million. This was due to fewer dispositions as compared to the prior year which included a significant facility sale of \$25.1 million which did not recur.

We expect to invest approximately \$100 to \$125 million in property, plant and equipment in 2021; approximately 60% of which will be to maintain current facilities.

Financing Arrangements

Net cash provided by financing activities was \$136.3 million in 2020, compared to \$8.7 million in 2019. This was largely due to an increase in proceeds from short term debt for working capital needs as commodity prices increased significantly through the latter part of the year. The increase in short term borrowings was offset in part by reductions in long-term debt consistent with the Company's strategy to reduce long-term debt and achieving a targeted long-term debt-to-EBITDA ratio of less than 2.5 times by the end of 2023.

As of December 31, 2020, the Company was party to borrowing arrangements with a syndicate of banks that provide a total short and long-term borrowing capacity of \$1,374.2 million. This amount includes \$20.0 million for ELEMENT and \$197 million for TAMH, all of which are non-recourse to the Company. There was \$868.4 million available for borrowing at December 31, 2020. Typically, our highest borrowing occurs in the late winter and early spring due to seasonal inventory requirements in our fertilizer and grain businesses, however, rising commodity prices during the fourth quarter required more borrowing than the prior year.

The Company paid \$23.0 million in dividends in 2020 compared to \$22.1 million in 2019. The Company paid \$0.175 per common share for the dividends paid in January, April, July and October 2020, and \$0.170 per common share for the dividends paid in January, April, July and October 2019. On December 17, 2020, we declared a cash dividend of \$0.175 per common share, payable on January 20, 2021 to shareholders of record on January 4, 2021.

Certain of our long-term borrowings include covenants that, among other things, impose minimum levels of equity and limitations on additional debt. We are in compliance with all such covenants as of December 31, 2020. In addition, certain of our long-term borrowings are collateralized by first mortgages on various facilities or are collateralized by railcar assets. Our non-recourse long-term debt is collateralized by ethanol plant assets and railcar assets.

Because we are a significant consumer of short-term debt in peak seasons and the majority of this is variable rate debt, increases in interest rates could have a significant impact on our profitability. In addition, periods of high commodity prices and/or unfavorable market conditions could require us to make additional margin deposits on our exchange traded futures contracts. Conversely, in periods of declining prices, we receive a return of cash.

We believe our sources of liquidity will be adequate to fund our operations, capital expenditures and payments of dividends in the foreseeable future.

Contractual Obligations

Future payments due under contractual obligations at December 31, 2020 are as follows:

Payments Due by Period Less than 1 After 5 1-3 years 3-5 years Total (in thousands) 122,208 847,650 Long-term debt, recourse 69,037 188,202 468,203 Long-term debt, non-recourse 6,438 27,110 85,372 151,399 32,479 Interest obligations (a) 25,245 44,466 32,185 146,003 44,107 Operating leases 21,262 25,087 61,201 7,785 7,067 Purchase commitments (b) 3,096,336 167,280 3,263,616 Retiree healthcare programs (c) 2.324 3,118 3.044 27,947 36,433 Total contractual cash obligations 3,220,642 389,269 316,588 579,803 \$ 4,506,302

At December 31, 2020, we had standby letters of credit outstanding of \$25.5 million.

Off-Balance Sheet Transactions

Our Rail segment utilizes leasing arrangements that provide off-balance sheet financing for its activities. We lease assets from financial intermediaries through sale-leaseback transactions, the majority of which involve operating leasebacks. We also arrange non-recourse lease transactions under which we sell assets to a financial intermediary and assign the related operating lease to the financial intermediary on a non-recourse basis. In such arrangements, we generally provide ongoing maintenance and management services for the financial intermediary and receive a fee for such services. We have a total of 324 railcars that would be considered off-balance sheet at December 31, 2020.

Industrial Revenue Bonds.

On December 3, 2019, we closed an industrial revenue bond transaction with the City of Colwich, Kansas (the "City") in order to receive a 20-year real property tax abatement on our renovated and newly-constructed ELEMENT ethanol facility. Pursuant to this transaction, the City issued a principal amount of \$166.1 million of its industrial revenue bonds to us and then used the proceeds to purchase the land and facility from us. The City then leased the facilities back to us under a finance lease, the terms of which provide for the payment of basic rent in an amount sufficient to pay principal and interest on the bonds. Subsequent to the issuance of the bonds, the Company redeemed \$165.1 million of the bonds, leaving \$1.0 million issued and outstanding. Our obligation to pay rent under the lease is in the same amount and due on the same date as the City's obligation to pay debt service on the bonds which we hold. The lease permits us to present the bonds at any time for cancellation, upon which our obligation to pay basic rent would be canceled. The bonds' maturity date is 2029, at which time the facilities will revert to us without costs. If we were to present the bonds for cancellation prior to maturity, a nominal fee would be incurred. We recorded the land and buildings as assets in property, plant, and equipment, net, on our Consolidated Balance Sheets. Because we own all outstanding bonds, have a legal right to set-off, and intend to set-off the corresponding lease and interest payment, we have netted the finance lease obligation with the bond asset. No amount for our obligation under the finance lease is reflected on our Consolidated Balance Sheets, nor do we reflect an amount for the corresponding industrial revenue bond asset (see Note 14 to the Consolidated Financial Statements).

⁽a) Future interest obligations are calculated based on interest rates in effect as of December 31, 2020 for the Company's variable rate debt and do not include any assumptions on expected borrowings, if any, under the short-term line of credit.

⁽b) Includes the amounts related to purchase obligations in the Company's operating units, including \$3,126.3 million for the purchase of grain from producers. There are also forward grain and ethanol sales contracts to consumers and traders and the net of these forward contracts are offset by exchange-traded futures and options contracts or over-the-counter contracts. See the narrative description of businesses for the Trade and Ethanol segments in Item 1 of this Annual Report on Form 10-K for further discussion.

⁽c) Obligations under the retiree healthcare programs are not fixed commitments and will vary depending on various factors, including the level of participant utilization and inflation. Our estimates of postretirement payments have considered recent payment trends and actuarial assumptions.

Critical Accounting Estimates

The process of preparing financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. Management evaluates these estimates and assumptions on an ongoing basis. Estimates and assumptions are based on historical experience and management's knowledge and understanding of current facts and circumstances. Actual results, under conditions and circumstances different from those assumed, may change from these estimates.

Certain of our accounting estimates are considered critical, as they are important to the depiction of the Company's financial statements and/or require significant or complex judgment by management. There are other items within our financial statements that require estimation, however, they are not deemed critical as defined above. Note 1 to the Consolidated Financial Statements in Item 8 describes our significant accounting policies which should be read in conjunction with our critical accounting estimates.

Management believes that the accounting for readily marketable inventories and commodity derivative contracts, including adjustments for counterparty risk, uncertain tax positions, impairment of long-lived assets, goodwill and equity method investments and business combinations involve significant estimates and assumptions in the preparation of the Consolidated Financial Statements.

Readily Marketable Inventories and Derivative Contracts

Readily Marketable Inventories ("RMI") are stated at their net realizable value, which approximates fair value based on their commodity characteristics, widely available markets, and pricing mechanisms. The Company marks to market all forward purchase and sale contracts for commodities and ethanol, over-the-counter commodity and ethanol contracts, and exchange-traded futures and options contracts. The overall market for commodity inventories is very liquid and active; market value is determined by reference to prices for identical commodities on regulated commodity exchange (adjusted primarily for transportation costs); and the Company's RMI may be sold without significant additional processing. The Company uses forward purchase and sale contracts and both exchange traded and over-the-counter contracts (such as derivatives generally used by the International Swap Dealers Association). Management estimates fair value based on exchange-quoted prices, adjusted for differences in local markets, as well as counter-party non-performance risk in the case of forward and over-the-counter contracts. The amount of risk, and therefore the impact to the fair value of the contracts, varies by type of contract and type of counterparty. With the exception of specific customers thought to be at higher risk, the Company looks at the contracts in total, segregated by contract type, in its quarterly assessment of non-performance risk. For those customers that are thought to be at higher risk, the Company makes assumptions as to performance based on past history and facts about the current situation. Changes in fair value are recorded as a component of Cost of sales and merchandising revenues in the Statement of Operations.

Impairment of Long-Lived Assets, Goodwill, and Equity Method Investments

The Company's business segments are each highly capital intensive and require significant investment. Long-lived assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. This is done by evaluating the recoverability based on undiscounted projected cash flows, excluding interest. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value.

Goodwill is tested for impairment at the reporting unit level, which is the operating segment or one level below the operating segment. The quantitative review for impairment takes into account our estimates of future cash flows. Our estimates of future cash flows are based upon a number of assumptions including operating costs, life of the assets, potential disposition proceeds, budgets and long-range plans. These factors are discussed in more detail in Note 17, Goodwill and Intangible Assets, to the Consolidated Financial Statements.

As part of the Company's on-going assessment of goodwill, management determined that in the first quarter a triggering event occurred due to the Company's reorganization whereby the Company combined its operations between the Trade and Ethanol segments to enhance operating decisions and assessing performance. On January 1, 2020, the Company moved its Distillers Dried Grains ("DDG") business from the Trade to Ethanol segment. The reorganization resulted in the reassignment of goodwill to the affected reporting units using a relative fair value approach. As a result of the reassignment and allocation, the Company performed an interim review of the carrying value of goodwill at the Trade and Ethanol segments for possible impairment on both a pre and post-reorganization basis. No impairment of goodwill was indicated at the pre or post-reorganization reporting units.

Further, due to the severe decline in ethanol prices, largely impacted by COVID-19 during the first quarter, management determined that a triggering event occurred within the Ethanol segment. Accordingly, an interim impairment test was performed over the Ethanol group's goodwill as well as its other intangible and long-lived assets. Based on the results of the impairment test, the Ethanol segment did not record an impairment charge. The results of the goodwill impairment test within the Ethanol group supported the calculated fair value exceeding the carrying values by greater than 20% at the time of the test.

Our annual goodwill impairment test is performed as of October 1st each year which is discussed in further detail in Note 17 to the Consolidated Financial Statements.

As our market capitalization remained below our book value through the end of the year, we performed an update to our annual test whereby management reviewed market influences and any relevant changes in assumptions from our annual test. Based on the methodologies used it was determined that the Company's reporting units estimated fair values continued to exceed that of their carrying values.

In addition, the Company holds investments in several companies that are accounted for using the equity method of accounting. The Company reviews its investments to determine whether there has been a decline in the estimated fair value of the investment that is below the Company's carrying value which is other than temporary. Other than consideration of past and current performance, these reviews take into account forecasted earnings which are based on management's estimates of future performance as well as the market or other income approach to estimate fair value.

Management considers several factors to be significant when estimating fair value including expected financial outlook of the business, changes in the Company's stock price, the impact of changing market conditions on financial performance and expected future cash flows, the geopolitical environment and other factors. Deterioration in any of these factors may result in a lower fair value assessment, which could lead to impairment charges in the future. Specifically, actual results may vary from the Company's forecasts and such variations may be material and unfavorable, thereby triggering the need for future impairment tests where the conclusions could result in non-cash impairment charges.

Business Combinations

Accounting for business combinations requires us to make significant estimates and assumptions, especially at the acquisition date with respect to tangible and intangible assets acquired and liabilities assumed and pre-acquisition contingencies. We use our best estimates and assumptions to accurately assign fair value to the tangible and intangible assets acquired and liabilities assumed at the acquisition date as well as the useful lives of those acquired intangible assets.

Examples of critical estimates in valuing certain of the intangible assets and goodwill we have acquired include but are not limited to the future expected cash flows of the acquired company's operations, the assumptions regarding the attrition rates associated with customer relationships and the period of time non-compete agreements will continue, and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Uncertain Tax Positions

Conclusions on recognizing and measuring uncertain tax positions involve significant estimates and management judgment and include complex considerations of the Internal Revenue Code, related regulations, tax case laws, and prior year audit settlements. To account for uncertainty in income taxes, the Company evaluates the likelihood of a tax position based on the technical merits of the position, performs a subsequent measurement related to the maximum benefit and degree of likelihood, and determines the benefits to be recognized in the financial statements, if any. During the year ended December 31, 2020, the Company recognized tax benefits of \$1.4 million for Federal Research and Development Credits ("R&D Credits") related to tax years 2015 to 2019. Unrecognized tax benefits of \$44.4 million include \$40.6 million recorded as a reduction of the deferred tax assets and refundable credits associated with the R&D Credits.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The market risk inherent in the Company's market risk-sensitive instruments and positions is the potential loss arising from adverse changes in commodity prices and interest rates as discussed below.

Commodity Prices

The Company's daily net commodity position consists of inventories, related purchase and sale contracts, exchange-traded futures, and over-the-counter contracts. The fair value of the position is a summation of the fair values calculated for each commodity by valuing each net position at quoted futures market prices. The Company has established controls to manage and limit risk exposure, which consists of a daily review of position limits and effects of potential market price moves on those positions.

A sensitivity analysis has been prepared to estimate the Company's exposure to market risk of its net commodity futures position. Market risk is estimated as the potential loss in fair value resulting from a hypothetical 10% adverse change in quoted market prices. The result of this analysis, which may differ from actual results, is as follows:

	 December 3	81,
(in thousands)	 2020	2019
Net commodity position	\$ (14,093) \$	(8,969)
Market risk	1,409	896

Foreign Currency

The Company has subsidiaries located outside the United States where the local currency is the functional currency. To reduce the risks associated with foreign currency exchange rate fluctuations, the Company enters into currency exchange contracts to minimize its foreign currency position related to transactions denominated primarily in the British pound, Mexican peso and Canadian dollar. These currencies represent the major functional or local currencies in which recurring business transactions occur. The Company does not use currency exchange contracts as hedges against amounts indefinitely invested in foreign subsidiaries and affiliates. The currency exchange contracts used are forward contracts, swaps with banks, exchange-traded futures contracts, and over-the-counter options. The changes in market value of such contracts have a high correlation to the price changes in the currency of the related transactions. The potential loss in fair value for such net currency position resulting from a hypothetical 10% adverse change in foreign currency exchange rates is not material.

Interest Rates

The fair value of the Company's long-term debt is estimated using quoted market prices or discounted future cash flows based on the Company's current incremental borrowing rates and credit ratings for similar types of borrowing arrangements. Market risk, which is estimated as the potential increase in fair value resulting from a hypothetical one-half percent decrease in interest rates, is summarized below:

	 December 31,		
(in thousands)	 2020		2019
Fair value of long-term debt, including current maturities	\$ 1,026,881	\$	1,096,010
Carrying value less fair value	27,832		8,257
Market risk	9,891		7,573

Actual results may differ. The estimated fair value and market risk will vary from year to year depending on the total amount of long-term debt and the mix of variable and fixed rate debt.

Additionally, the Company may enter into interest rate swaps from time to time to manage our mix of fixed and variable interest rate debt effectively which may decrease market risk noted above. See Note 5 to the Consolidated Financial Statements for further discussion on the impact of these hedging instruments.

Item 8. Financial Statements and Supplementary Data

The Andersons, Inc. Index to Financial Statements

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of The Andersons, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of The Andersons, Inc. and subsidiaries (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income, equity, and cash flows, for each of the three years in the period ended December 31, 2020, and the related notes and the schedule listed in the Index at Item 15 (collectively, referred to as, the "financial statements"). In our opinion, based on our audits and the reports of the other auditors, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

We did not audit the financial statements of Lansing Trade Group, LLC or Lux JV Treasury Holding Company S.à.r.l. as of and for the year ended December 31, 2018, the Company's investments which were accounted for by use of the equity method. The accompanying financial statements of the Company include its equity in earnings in Lansing Trade Group, LLC of \$10.4 million, and Lux JV Treasury Holding Company S.à.r.l. of \$2.2 million, for the year ended December 31, 2018. Those statements were audited by other auditors whose reports have been furnished to us, and our opinion, insofar as it relates to the amounts included for Lansing Trade Group, LLC and Lux JV Treasury Holding Company S.à.r.l., is based solely on the reports of the other auditors.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 25, 2021, expressed an unqualified opinion on the Company's internal control over financial reporting based on our audit.

Change in Accounting Principle

As discussed in Note 1 to the financial statements, the Company has changed its method of accounting for leases using the modified retrospective transition approach in 2019 due to adoption of ASC 842, Leases.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits and the reports of the other auditors provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Goodwill—GSM and FSI Reporting Units—Refer to Notes 1 and 17 to the consolidated financial statements

Critical Audit Matter Description

Goodwill is tested for impairment annually as of October 1, or more frequently if impairment indicators arise. The Company uses a one-step quantitative approach that compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV was computed based on both an income approach (discounted cash flows) and a market approach. The income approach uses a reporting unit's estimated future cash flows, discounted at the weighted-average cost of capital of a hypothetical third-party buyer. The market approach estimates fair value by applying cash flow multiples to the reporting unit's operating performance. The multiples are derived from comparable publicly traded companies with similar operating and investment characteristics to the reporting unit.

The consolidated goodwill balance was \$135.7 million as of December 31, 2020, of which \$80.8 million and \$41.3 million was allocated to the Grain Storage and Merchandising (GSM) and Food and Specialty Ingredients (FSI) reporting units, respectively. The BEV of the GSM and FSI reporting units exceeded its carrying values by 9% and 14%, respectively, as of October 1, 2020, and, therefore, no impairment was recognized. The BEV for the GSM and FSI reporting units are sensitive to changes in the weighted-average cost of capital. Given the significant judgments made by management to estimate the BEV of the GSM and FSI reporting units, performing audit procedures to evaluate the reasonableness of management's estimates and assumptions related to selection of the weighted-average cost of capital as of October 1, 2020, required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the selection of the weighted-average cost of capital used by management to estimate the fair values of the GSM and FSI reporting units included the following, among others:

- We tested the effectiveness of internal control over management's selection of the valuation assumptions used to determine each BEV, including the weighted-average cost of capital.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) weighted-average cost of capital by:
 - Testing the source information underlying the determination of the weighted-average cost of capital and the mathematical accuracy of the calculation
 - Evaluating the underlying factors that led to management's determination of the company specific risk premium
 - Developing a range of independent estimates and comparing those to the weighted-average cost of capital selected by management

/s/ Deloitte & Touche LLP

Cleveland, Ohio February 25, 2021

We have served as the Company's auditor since 2015.

Report of Independent Registered Public Accounting Firm

The Members and Board of Managers Lansing Trade Group, LLC:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Lansing Trade Group, LLC and subsidiaries (the Company) as of December 31, 2018, the related consolidated statements of comprehensive income, equity, and cash flows for the year ended December 31, 2018, and the related notes (collectively, the consolidated financial statements). In our opinion, based on our audit and the report of the other auditors, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018, and the results of its operations and its cash flows for the year ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We did not audit the consolidated financial statements of Lux JV Treasury Holding Company S.a.r.1 (Lux JV) (a 50 percent owned investee company). The Company's investment in Lux JV at December 31, 2018 was \$44.7 million and its equity in earnings of Lux JV was \$1.6 million for the year ended December 31, 2018. The consolidated financial statements of Lux JV were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Lux JV, is based solely on the report of the other auditors.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit and the report of the other auditors provides a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor from 2017 to 2019.

Kansas City, Missouri February 27, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Managers and shareholders of Lux JV Treasury Holding Company S.à r.l.

Opinion on the Financial Statements

We have audited the accompanying consolidated statement of operations and retained earnings and cash flows of Lux JV Treasury Holding Company S.à r.l. and its subsidiaries (together, the Company) for the period ending December 31, 2018, including the related notes (collectively referred to as the consolidated financial statements) (not presented herein). In our opinion, the consolidated financial statements present fairly, in all material respects, their results of operations and their cash flows for the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America (US GAAP).

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Chartered Professional Accountants, Licensed Public Accountants

London, Canada February 21, 2019

We have served as the Company's auditor from 2013 to 2020.

The Andersons, Inc. Consolidated Balance Sheets (In thousands)

	D	December 31, 2020		ecember 31, 2019
Assets				
Current assets:				
Cash, cash equivalents and restricted cash	\$	29,123	\$	54,895
Accounts receivable, less allowance for doubtful accounts of \$15,474 in 2020; \$12,781 in 2019		659,834		536,367
Inventories (Note 2)		1,300,693		1,170,536
Commodity derivative assets – current (Note 5)		320,706		107,863
Other current assets		106,053		75,681
Total current assets		2,416,409		1,945,342
Other assets:				
Goodwill		135,709		135,360
Other intangible assets, net		142,940		175,312
Right of use assets, net		56,031		76,401
Other assets		49,907		45,610
Total other assets		384,587		432,683
Rail assets leased to others, net (Note 3)		591,946		584,298
Property, plant and equipment, net (Note 3)		879,179		938,418
Total assets	\$	4,272,121	\$	3,900,741
Liabilities and equity				
Current liabilities:				
Short-term debt (Note 4)	\$	403,703	\$	147,031
Trade and other payables		957,683		873,081
Customer prepayments and deferred revenue		180,160		133,585
Commodity derivative liabilities – current (Note 5)		146,990		46,942
Current maturities of long-term debt (Note 4)		75,475		62,899
Accrued expenses and other current liabilities		167,671		176,381
Total current liabilities		1,931,682		1,439,919
Long-term lease liabilities		37,177		51,091
Long-term debt, less current maturities (Note 4)		916,540		1,016,248
Deferred income taxes (Note 8)		170,147		146,155
Other long-term liabilities		55,915		51,673
Total liabilities		3,111,461		2,705,086
Commitments and contingencies (Note 14)				
Shareholders' equity:				
Common shares, without par value (63,000 shares authorized; 33,599 shares issued in 2020; 33,550 shares issued in 2019)		138		137
Preferred shares, without par value (1,000 shares authorized; none issued)		_		_
Additional paid-in-capital		348,714		345,359
Treasury shares, at cost (45 in 2020; 207 in 2019)		(966)		(7,342)
Accumulated other comprehensive loss		(12,076)		(7,231)
Retained earnings		626,081		642,687
Total shareholders' equity of The Andersons, Inc.		961,891		973,610
Noncontrolling interests		198,769		222,045
Total equity		1,160,660		1,195,655
Total liabilities and equity	\$	4,272,121	\$	3,900,741

The Andersons, Inc. Consolidated Statements of Operations (In thousands, except per share data)

	Year ended December 31,			
	2020	2019	2018	
Sales and merchandising revenues	\$ 8,208,436	\$ 8,170,191	\$ 3,045,382	
Cost of sales and merchandising revenues	7,803,514	7,652,299	2,743,377	
Gross profit	404,922	517,892	302,005	
Operating, administrative and general expenses	399,207	436,842	257,872	
Asset impairment	_	41,212	6,272	
Interest expense, net	51,275	59,691	27,848	
Other income:				
Equity in earnings (losses) of affiliates, net	638	(7,359)	27,141	
Gain from remeasurement of equity method investments, net	_	35,214	_	
Other income, net	20,448	20,109	16,002	
Income (loss) before income taxes	(24,474)	28,111	53,156	
Income tax provision (benefit)	(10,259)	13,051	11,931	
Net income (loss)	(14,215)	15,060	41,225	
Net loss attributable to the noncontrolling interest	(21,925)	(3,247)	(259)	
Net income attributable to The Andersons, Inc.	\$ 7,710	\$ 18,307	\$ 41,484	
Average number of shares outstanding – basic	32,924	32,570	28,258	
Average number of shares outstanding – diluted	33,189	33,096	28,452	
Per common share:				
Basic earnings attributable to The Andersons, Inc. common shareholders	\$ 0.23	\$ 0.56	\$ 1.47	
Diluted earnings attributable to The Andersons, Inc. common shareholders	\$ 0.23	\$ 0.55	\$ 1.46	

The Andersons, Inc. Consolidated Statements of Comprehensive Income (In thousands)

	Year ended December 31,					
		2020		2019		2018
Net income (loss)	\$	(14,215)	\$	15,060	\$	41,225
Other comprehensive income (loss), net of tax:						
Change in fair value of convertible preferred securities		_		_		(86)
Change in unrecognized actuarial gain and prior service cost		(856)		(4,142)		359
Foreign currency translation adjustments		4,674		12,615		(3,834)
Cash flow hedge activity		(8,663)		(9,317)		(126)
Other comprehensive loss		(4,845)		(844)		(3,687)
Comprehensive income (loss)		(19,060)		14,216		37,538
Comprehensive loss attributable to the noncontrolling interests		(21,925)		(3,247)		(259)
Comprehensive income attributable to The Andersons, Inc.	\$	2,865	\$	17,463	\$	37,797

The Andersons, Inc. Consolidated Statements of Cash Flows (In thousands)

	Year ended December 31,				1,
		2020	2019		2018
Operating Activities					
Net income (loss)	\$	(14,215)	\$ 15,060	\$	41,225
Adjustments to reconcile net income (loss) to cash provided by (used in) operating activities:					
Depreciation and amortization		188,638	146,166		90,297
Bad debt expense		7,042	4,007		542
Equity in (earnings) losses of affiliates, net of dividends		(638)	7,671		(23,167
Loss (gain) on sales of assets, net		(37)	(7,063)		(5,218
Gains on sales of Rail assets and related leases, net		(649)	(4,122)		(9,558
Stock based compensation expense		10,183	16,229		6,624
Deferred income tax		26,386	5,114		11,018
Inventory write-down		11,676	_		_
Asset impairment		_	41,212		6,272
Gain from remeasurement of equity method investments, net		_	(35,214)		_
Other		10,072	3,540		(1,451
Changes in operating assets and liabilities:					
Accounts receivable		(128,502)	1,487		(24,788
Inventories		(139,499)	(1,578)		(44,060
Commodity derivatives		(115,170)	21,714		(16,610
Other assets		(53,208)	30,497		3,290
Payables and other accrued expenses		123,489	103,842		(69,935
Net cash provided by (used in) operating activities		(74,432)	348,562		(35,519
Investing Activities		() -)			(
Acquisition of businesses, net of cash acquired		_	(102,580)		(2,248
Purchases of Rail assets		(27,739)	(105,254)		(167,005
Proceeds from sale of Rail assets		10,077	18,090		79,439
Purchases of property, plant and equipment and capitalized software		(77,147)	(165,223)		(142,579
Proceeds from sale of assets and businesses		11,112	30,617		47,486
Purchase of investments		(3,059)	(1,490)		(1,086
Other		(3,037)	808		(1,000
Net cash used in investing activities		(86,756)	(325,032)		(185,993
Financing Activities	_	(80,730)	(323,032)	_	(103,993
Net change in short-term borrowings		254,971	(278,824)		183,000
Proceeds from issuance of long-term debt			922,594		132,000
		471,906			
Payments of long-term debt		(559,711)	(608,483)		(121,090
Proceeds from noncontrolling interest owner		8,576	4,714		46,736
Distributions to noncontrolling interest owner		(10,322)			
Payments of debt issuance costs		(898)	(6,561)		(1,446
Acquisition of noncontrolling interest					(10,000
Dividends paid		(23,004)	(22,118)		(18,639
Other		(5,222)	(2,615)	_	(1,375
Net cash provided by financing activities		136,296	8,707		209,186
Effect of exchange rates on cash, cash equivalents and restricted cash		(880)	65	_	_
Increase (decrease) in cash, cash equivalents and restricted cash		(25,772)	32,302		(12,326
Cash, cash equivalents and restricted cash at beginning of year		54,895	22,593	_	34,919
Cash, cash equivalents and restricted cash at end of year	\$	29,123	\$ 54,895	\$	22,593

The Andersons, Inc. Consolidated Statements of Equity (In thousands, except per share data)

	The Andersons, Inc. Shareholders' Equity							
	-				Accumulated			
	Comm		Additional Paid-in Capital	Treasury Shares	Other Comprehensive Loss	Retained Earnings	Noncontrolling Interests	Total
Balance at January 1, 2018	\$	96	\$224,622	\$(40,312)	\$ (2,700)	\$633,496	\$ 7,697	\$ 822,899
Net income (loss)						41,484	(259)	41,225
Other comprehensive loss					(3,687))		(3,687)
Cash received from (paid to) noncontrolling interest, net			(2,268)				39,004	36,736
Adoption of accounting standard, net of income tax of \$3,492						(7,818)		(7,818)
Stock awards, stock option exercises and other shares issued to employees and directors, net of income tax of \$(267) (127 shares)			2,042	4,871				6,913
Dividends declared (\$0.665 per common share)			,	, , ,		(19,504)		(19,504)
Restricted share award dividend equivalents				141		(141)		_
Balance at December 31, 2018		96	224,396	(35,300)	(6,387)	647,517	46,442	876,764
Net income (loss)						18,307	(3,247)	15,060
Other comprehensive loss					(12,734))		(12,734)
Amounts reclassified from accumulated other comprehensive loss					11,890			11,890
Cash received from noncontrolling interest, net			164				4,715	4,879
Noncontrolling interests recognized in connection with business combination			5,112				174,135	179,247
Cumulative adjustment for adoption of leasing standard, net of income tax of \$(76)						(550)		(550)
Stock awards, stock option exercises and other shares issued to employees and directors, net of income tax of \$0 (723 shares)			(12,121)	27,708				15,587
Dividends declared (\$0.685 per common share)			(, ,	,		(22,329)		(22,329)
Shares issued for acquisition		41	127,800			, , ,		127,841
Restricted share award dividend equivalents			8	250		(258)		_
Balance at December 31, 2019	1	.37	345,359	(7,342)	(7,231)	642,687	222,045	1,195,655
Net income (loss)						7,710	(21,925)	(14,215)
Other comprehensive loss					(10,213)			(10,213)
Amounts reclassified from accumulated other comprehensive income (loss)					5,368			5,368
Contributions from noncontrolling interests							8,576	8,576
Distributions to noncontrolling interests							(10,322)	(10,322)
Noncontrolling interests recognized in connection with business combination			(459)				395	(64)
Stock awards, stock option exercises and other shares issued to employees and directors, net of income tax of \$0 (150 shares)		1	3,814	5,968		(844)		8,939
Dividends declared (\$0.70 per common share)						(23,064)		(23,064)
Restricted share award dividend equivalents				408		(408)		
Balance at December 31, 2020	\$ 1	38	\$348,714	\$ (966)	\$ (12,076)		\$ 198,769	\$1,160,660

The Andersons, Inc. Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Basis of Consolidation

These Consolidated Financial Statements include the accounts of The Andersons, Inc. and its wholly owned and controlled subsidiaries (the "Company"). All material intercompany accounts and transactions are eliminated in consolidation. Investments in unconsolidated entities in which the Company has significant influence, but not control, are accounted for using the equity method of accounting.

At inception of joint venture transactions, we identify entities for which control is achieved through means other than voting rights ("variable interest entities" or "VIEs") and determine which business enterprise is the primary beneficiary of its operations. A VIE is broadly defined as an entity where either (i) the equity investors as a group, if any, do not have a controlling financial interest, or (ii) the equity investment at risk is insufficient to finance that entity's activities without additional subordinated financial support. The Company consolidates investments in VIEs when the Company is determined to be the primary beneficiary. This evaluation is based on an enterprise's ability to direct and influence the activities of a VIE that most significantly impact that entity's economic performance.

The Company evaluates its interests in VIEs on an ongoing basis and consolidates any VIE in which it has a controlling financial interest and is deemed to be the primary beneficiary. A controlling financial interest has both of the following characteristics: (i) the power to direct the activities of the VIE that most significantly impact its economic performance; and (ii) the obligation to absorb losses of the VIE that could potentially be significant to it or the right to receive benefits from the VIE that could be significant to the VIE.

On October 1, 2019, the Company entered into an agreement with Marathon Petroleum Corporation to merge The Andersons Albion Ethanol LLC ("TAAE"), The Andersons Clymers Ethanol LLC ("TACE"), The Andersons Marathon Ethanol LLC ("TAME") and the Company's wholly-owned subsidiary, The Andersons Denison Ethanol LLC ("TADE"), into a new legal entity, The Andersons Marathon Holdings LLC ("TAMH"). The Company evaluated its interest in TAMH and determined that TAMH is a VIE and that the Company is the primary beneficiary of TAMH. This is due to the fact that the Company has both the power to direct the activities that most significantly impact TAMH and the obligation to absorb losses or the right to receive benefits from TAMH. Therefore, the Company consolidated TAMH in its financial statements.

On March 2, 2018, the Company invested in ELEMENT. The Company owns 51% of ELEMENT and ICM, Inc. owns the remaining 49% interest. As part of the Company's investment into ELEMENT, the Company and ICM, Inc. entered into a number of agreements. Most notably, ICM, Inc. will operate the facility under a management contract and manage the initial construction of the facility, while the Company will provide corn origination, ethanol marketing, and risk management services. The Company evaluated its interest in ELEMENT and determined that ELEMENT is a VIE and that the Company is the primary beneficiary of ELEMENT. This is due to the fact that the Company has both the power to direct the activities that most significantly impact ELEMENT and the obligation to absorb losses or the right to receive benefits from ELEMENT. Therefore, the Company consolidates ELEMENT.

Use of Estimates and Assumptions

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents include cash and short-term investments with an initial maturity of three months or less. The carrying values of these assets approximate their fair values.

The Company had restricted cash of \$8.7 million as of December 31, 2019. The restricted cash balance was a result of a royalty claim assumed in the TAMH merger and included in the Consolidated Financial Statements of the Company. In 2020, this restricted cash was subsequently released, and the Company does not have restricted cash as of December 31, 2020.

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount and may bear interest if past due. The allowance for doubtful accounts is the best estimate of the current expected credit losses in existing accounts receivable. The allowance for doubtful accounts is reviewed quarterly. The allowance is based both on specific identification of potentially uncollectible accounts and the application of a consistent policy, based on historical experience, to estimate the allowance necessary for the remaining accounts receivable. For those customers that are thought to be at higher risk, the Company makes assumptions as to collectability based on past history and facts about the current situation. Account balances are charged off against the allowance when it becomes more certain that the receivable will not be recovered. The Company manages its exposure to counterparty credit risk through credit analysis and approvals, credit limits and monitoring procedures.

Commodity Derivatives and Inventories

The Company's operating results can be affected by changes to commodity prices. The Trade and Ethanol businesses have established "unhedged" position limits (the amount of a commodity, either owned or contracted for, that does not have an offsetting derivative contract to mitigate the price risk associated with those contracts and inventory). To reduce the exposure to market price risk on commodities owned and forward commodity and ethanol purchase and sale contracts, the Company enters into exchange traded commodity futures and options contracts and over-the-counter forward and option contracts with various counterparties. The forward purchase and sale contracts are for physical delivery of the commodity in a future period. Contracts to purchase commodities from producers generally relate to the current or future crop years for delivery periods quoted by regulated commodity exchanges. Contracts for the sale of commodities to processors or other commercial consumers generally do not extend beyond one year.

The Company accounts for its commodity derivatives at fair value. The estimated fair value of the commodity derivative contracts that require the receipt or posting of cash collateral is recorded on a net basis (offset against cash collateral posted or received, also known as margin deposits) within commodity derivative assets or liabilities. Management determines fair value based on exchange-quoted prices and in the case of its forward purchase and sale contracts, fair value is adjusted for differences in local markets and non-performance risk. While the Company considers certain of its commodity contracts to be effective economic hedges, the Company does not designate or account for its commodity contracts as hedges.

Realized and unrealized gains and losses in the value of commodity contracts (whether due to changes in commodity prices, changes in performance or credit risk, or due to sale, maturity or extinguishment of the commodity contract) and commodity inventories are included in cost of sales and merchandising revenues in the Consolidated Statements of Operations. Additional information about the fair value of the Company's commodity derivatives is presented in Notes 5 and 10 to the Consolidated Financial Statements.

Readily Marketable Inventories, which are grain and other agricultural commodities, may be acquired under provisionally priced contracts, are stated at their net realizable value, which approximates estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation.

All other inventories are stated at the lower of cost or net realizable value. Cost is determined by the average cost method. Additional information about inventories is presented in Note 2 to the Consolidated Financial Statements.

Derivatives - Master Netting Arrangements

Generally accepted accounting principles permit a party to a master netting arrangement to offset fair value amounts recognized for derivative instruments against the right to reclaim cash collateral or obligation to return cash collateral under the same master netting arrangement. The Company has master netting arrangements for its exchange traded futures and options contracts and certain over-the-counter contracts. When the Company enters into a futures, options or an over-the-counter contract, an initial margin deposit may be required by the counterparty. The amount of the margin deposit varies by commodity. If the market price of a futures, option or an over-the-counter contract moves in a direction that is adverse to the Company's position, an additional margin deposit, called a maintenance margin, is required. The Company nets, by counterparty, its futures and over-the-counter positions against the cash collateral provided or received. The margin deposit assets and liabilities are included in short-term commodity derivative assets or liabilities, as appropriate, in the Consolidated Balance Sheets. Additional information about the Company's master netting arrangements is presented in Note 5 to the Consolidated Financial Statements.

Derivatives - Interest Rate and Foreign Currency Contracts

The Company periodically enters into interest rate contracts to manage interest rate risk on borrowing or financing activities. The Company has long-term interest rate swaps recorded in other assets or other long-term liabilities that expire from 2021 to 2025 and have been designated as cash flow hedges; accordingly, changes in the fair value of the instruments are recognized in other comprehensive income. The Company has other interest rate contracts recorded in other assets that are not designated as hedges. While the Company considers all of its derivative positions to be effective economic hedges of specified risks, these interest rate contracts for which hedge accounting is not applied are recorded on the Consolidated Balance Sheets in either other current assets or liabilities (if short-term in nature) or in other assets or other long-term liabilities (if non-current in nature), and changes in fair value are recognized in current earnings as interest expense. Upon termination of a derivative instrument or a change in the hedged item, any remaining fair value recorded on the balance sheet is recorded as interest expense consistent with the cash flows associated with the underlying hedged item. Information regarding the nature and terms of the Company's interest rate derivatives is presented in Note 5 to the Consolidated Financial Statements.

Marketing Agreement

The Company has a marketing agreement that covers certain of its grain facilities, some of which are leased from Cargill. Under the five-year amended and restated agreement (renewed in June 2018 and ending May 2023), any grain the Company sells to Cargill is at market price. Income earned from operating the facilities (including buying, storing and selling grain and providing grain marketing services to its producer customers) over a specified threshold is shared equally with Cargill. Measurement of this threshold is made on a cumulative basis and cash is paid to Cargill on an annual basis. The Company recognizes its pro rata share of this profit-sharing arrangement as a reduction of revenue in our Consolidated Statements of Operations every month and accrues for any payment owed to Cargill. The profit-sharing arrangement increased the Company's revenues \$1.2 million for the year ended December 31, 2020, were de minimis for the year ended December 31, 2019, and decreased the Company's revenues by \$0.2 million in 2018, respectively.

Rail Assets Leased to Others

The Company's Rail segment purchases, leases, markets and manages railcars and barges for third parties and for internal use. Rail assets to which the Company holds title are shown on the balance sheet in one of two categories - other current assets (for those that are available for sale) or Rail assets leased to others. Rail assets leased to others, both on short and long-term leases, are classified as long-term assets and are depreciated over their estimated useful lives.

Railcars have statutory lives of either 40 or 50 years, measured from the date built. Barges have estimated lives of 30 to 40 years, measured from the date built. At the time of purchase, the remaining life is used in determining useful lives which are depreciated on a straight-line basis. Repairs and maintenance costs are charged to expense as incurred. Additional information regarding Rail assets leased to others is presented in Note 3 to the Consolidated Financial Statements.

Property, Plant and Equipment

Property, plant and equipment is recorded at cost. Repairs and maintenance costs are charged to expense as incurred, while betterments that extend useful lives are capitalized. Depreciation is provided over the estimated useful lives of the individual assets, by the straight-line method. Estimated useful lives are generally as follows: land improvements - 16 years; leasehold improvements - the shorter of the lease term or the estimated useful life of the improvement, ranging from 3 to 20 years; buildings and storage facilities - 10 to 40 years; and machinery and equipment - 3 to 20 years. The cost of assets retired or otherwise disposed of and the accumulated depreciation thereon are removed from the accounts, with any gain or loss realized upon sale or disposal credited or charged to operations.

Additional information regarding the Company's property, plant and equipment is presented in Note 3 to the Consolidated Financial Statements.

Deferred Debt Issue Costs

Costs associated with the issuance of debt are deferred and recorded net with debt. These costs are amortized, as a component of interest expense, over the earlier of the stated term of the debt or the period from the issue date through the first early payoff date without penalty, or the expected payoff date if the loan does not contain a prepayment penalty. Deferred costs associated with the borrowing arrangement with a syndication of banks are amortized over the term of the agreement.

Goodwill and Intangible Assets

Goodwill is subject to annual impairment tests or more often when events or circumstances indicate that the carrying amount of goodwill may be impaired. A goodwill impairment loss is recognized to the extent the carrying amount of goodwill exceeds the business enterprise value. Additional information about the Company's goodwill and other intangible assets is presented in Note 17 to the Consolidated Financial Statements.

Acquired intangible assets are recorded at cost, less accumulated amortization, if not indefinite lived. In addition, we capitalize the salaries and payroll-related costs of employees and consultants who devote time to the development of internal-use software projects. If a project constitutes an enhancement to previously-developed software, we assess whether the enhancement is significant and creates additional functionality to the software, thus qualifying the work incurred for capitalization. Once a project is complete, we estimate the useful life of the internal-use software. Changes in our estimates related to internal-use software would increase or decrease operating expenses or amortization recorded during the period.

Amortization of intangible assets is provided over their estimated useful lives (generally 1 to 10 years) on the straight-line method.

Impairment of Long-lived Assets and Equity Method Investments

Long-lived assets, including intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. Recoverability of assets to be held and used is measured by comparing the carrying amount of the assets to the undiscounted future net cash flows the Company expects to generate with the assets. If such assets are considered to be impaired, the Company recognizes an impairment loss for the amount by which the carrying amount of the assets exceeds the fair value of the assets.

The Company reviews its equity method investments to determine whether there has been a decline in the estimated fair value of the investment that is below the Company's carrying value which is other-than-temporary. Other than consideration of past and current performance, these reviews take into account forecasted earnings which are based on management's estimates of future performance.

Provisionally Priced Commodity Contracts

Accounts payable includes certain amounts related to commodity purchases for which, even though the Company has taken ownership and possession of the commodity the final purchase price has not been fully established. If the futures and basis components are unpriced, it is referred to as a delayed price payable. If the futures component has not been established, but the basis has been set, it is referred to as a basis payable. The unpriced portion of these payables will be exposed to changes in the fair value of the underlying commodity based on quoted prices on commodity exchanges (or basis levels). Those payables that are fully priced are not considered derivative instruments.

The Company also enters into contracts with customers for risk management purposes that allow the customers to effectively unprice the futures component of their inventory for a period of time, subjecting the commodities to market fluctuations. The Company records an asset or liability for the market value changes of the commodities over the life of the contracts based on quoted exchange prices. See Note 10 for additional discussion on these instruments.

Stock-Based Compensation

Stock-based compensation expense for all stock-based compensation awards is based on the estimated grant-date fair value. The Company recognizes these compensation costs on a straight-line basis over the requisite service period of the award, adjusted for revisions to performance expectations. Additional information about the Company's stock compensation plans is presented in Note 15 to the Consolidated Financial Statements.

Per Share Data

Basic earnings per common share are determined by dividing net earnings attributable to controlling interests by the weighted average number of common shares outstanding. In computing diluted earnings per share, average number of common shares outstanding is increased by unvested stock awards and common stock options outstanding with exercise prices lower than the average market price of common shares using the treasury share method. At December 31, 2020, 2019 and 2018, all options to purchase shares of the Company's common stock were not included in the computation of diluted earnings per share as the exercise price of the options were less than the average market price of the common shares.

Revenue Recognition

The Company's revenue consists of sales from commodity contracts that are accounted for under ASC 815, *Derivatives and Hedging* (ASC 815), rental revenues from leases that are accounted for under ASC 842, *Leases*, and sales of other products and services that are accounted for under ASC 606, *Revenue from Contracts with Customers* (ASC 606).

Revenue from commodity contracts (ASC 815)

Revenue from commodity contracts primarily relates to forward sales of commodities in the Company's Trade and Ethanol segments, such as corn, soybeans, wheat, oats, ethanol, and corn oil, which are accounted for as derivatives at fair value under ASC 815. These forward sales meet the definition of a derivative under ASC 815 as they have an underlying (e.g. the price of corn), a notional amount (e.g. metric tons), no initial net investment and can be net settled since the commodity is readily convertible to cash. The Company does not apply the normal purchase and normal sale exception available under ASC 815 to these contracts.

Revenue from commodity contracts is recognized in Sales and merchandising revenues for the contractually stated amount when the contracts are settled. Settlement of the commodity contracts generally occurs upon shipment or delivery of the product, when title and risks and rewards of ownership transfers to the customer. Prior to settlement, these forward sales contracts are recognized at fair value with the unrealized gains or losses recorded within Cost of sales and merchandising revenues. Additional information about the fair value of the Company's commodity derivatives is presented in Notes 5 and 10 to the Consolidated Financial Statements.

There are certain transactions that allow for pricing to occur after title of the goods has passed to the customer. In these cases, the Company continues to report the goods in inventory until it recognizes the sales revenue once the price has been determined. Direct ship commodity sales (where the Company never takes physical possession of the commodity) are recognized based on the terms of the contract.

Certain of the Company's operations provide for customer billings, deposits or prepayments for product that is stored at the Company's facilities. The sales and gross profit related to these transactions are not recognized until the product is shipped in accordance with the previously stated revenue recognition policy and these amounts are classified as a current liability titled "Customer prepayments and deferred revenue".

Revenue from leases (ASC 842)

The Company has a diversified fleet of car types (boxcars, gondolas, covered and open top hopper cars, flat cars, tank cars and pressure differential cars), locomotives and barges serving a broad customer base. While most of these assets are owned by the Company, it also leases assets from financial intermediaries through sale-leaseback transactions, the majority of which involve operating leases. The Company's Rail leases these assets to customers under operating leases, which includes managing the assets for third parties. In exchange for conveying the right to use these railcars to the lessee, the Company receives a fixed monthly rental payment, which is typically expressed on a "per car" basis in the lease agreement. Revenue from these arrangements is recognized on a straight-line basis over the term of the lease.

Certain of the Company's leases include monthly lease fees that are contingent upon some measure of usage ("per diem" leases). This monthly usage is tracked, billed and collected by third-party service providers and funds are generally remitted to the Company along with usage data three months after they are earned. The Company records lease revenue for these per diem arrangements based on recent historical usage patterns and records a true-up adjustment when the actual data is received. Such true-up adjustments were not significant for any period presented.

Revenue related to railcar or other asset servicing and maintenance contracts is recognized over the term of the lease or service contract.

Revenue from contracts with customers (ASC 606)

Revenue from contracts with customers accounted for under ASC 606 is primarily generated in the Plant Nutrient segment through the sale of agricultural and related plant nutrients, corncob-based products, pelleted lime and gypsum products. The Company recognizes revenue from these contracts at a point in time when it satisfies a performance obligation by transferring control of a product to a customer, generally when legal title and risks and rewards of ownership transfer to the customer.

Additional information regarding our revenue recognition policy under ASC 606 is presented in Note 7 to the Consolidated Financial Statements.

Lease Accounting

On January 1, 2019, the Company adopted ASC 842 using the modified retrospective approach. The modified retrospective approach recognizes the effects of initially applying the new leases standard as a cumulative effect adjustment to retained earnings as of the adoption date. Under this election, the provisions of ASC 840 apply to the accounting and disclosures for lease arrangements in the comparative periods in an entity's financial statements. In addition, the Company elected the package of practical expedients permitted under the transition guidance within ASC 842, in which the Company need not reassess (i) the historical lease classification, (ii) whether any expired or existing contract is or contains a lease, or (iii) the initial direct costs for any existing leases. The Company recognizes a right of use asset and a corresponding lease liability equal to the present value of the remaining minimum lease payments related to both its operating and finance rail leases. Additional information about leasing activities is presented in Note 13 to the Consolidated Financial Statements.

Income Taxes

Income tax expense for each period includes current tax expense plus deferred expense, which is related to the change in deferred income tax assets and liabilities. Deferred income taxes are provided for temporary differences between the financial reporting basis and the tax basis of assets and liabilities and are measured using enacted tax rates and laws governing periods in which the differences are expected to reverse. The Company evaluates the realizability of deferred tax assets and provides a valuation allowance for amounts that management does not believe are more likely than not to be recoverable, as applicable.

The annual effective tax rate is determined by income tax expense from continuing operations as a percentage of pre-tax book income. Differences in the effective tax rate and the statutory tax rate may be due to permanent items, tax credits, foreign tax rates and state tax rates in jurisdictions in which the Company operates, or changes in valuation allowances.

The Company records reserves for uncertain tax positions when, despite the belief that tax return positions are fully supportable, it is anticipated that certain tax return positions are likely to be challenged and that the Company may not prevail. These reserves are adjusted for changing facts and circumstances, such as the progress of a tax audit or the lapse of statutes of limitations.

Additional information about the Company's income taxes is presented in Note 8 to the Consolidated Financial Statements.

Employee Benefit Plans

The Company provides full-time employees hired before January 1, 2003 with postretirement health care benefits. In order to measure the expense and funded status of these employee benefit plans, management makes several estimates and assumptions, including employee turnover rates, anticipated mortality rates and anticipated future healthcare cost trends. These estimates and assumptions are based on the Company's historical experience combined with management's knowledge and understanding of current facts and circumstances. The selection of the discount rate is based on an index given projected plan payouts. Additional information about the Company's employee benefit plans is presented in Note 6 to the Consolidated Financial Statements.

Recently Adopted Accounting Pronouncements

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued ASU 2016-13, Measurement of Credit Losses on Financial Instruments. The FASB issued subsequent amendments to the initial guidance in November 2018, April 2019 and May 2019 with ASU 2018-19, ASU 2019-04 and ASU 2019-05, respectively. This update changes the accounting for credit losses on loans and held-to-maturity debt securities and requires a current expected credit loss (CECL) approach to determine the allowance for credit losses. This includes allowances for trade receivables. Effective January 1, 2020, we adopted ASU 2016-13 using the modified retrospective transition method. This ASU amends the impairment model to utilize an expected loss methodology in place of the incurred loss methodology for financial instruments, including trade receivables, and off-balance sheet credit exposures. The amendment requires entities to consider a broader range of information to estimate expected credit losses, which may result in earlier recognition of losses. The impact of adopting this new standard on the Consolidated Financial Statements was not material.

Cloud Computing Software

In August 2018, the FASB issued ASU No. 2018-15, Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract. This ASU reduces the complexity of accounting for costs of implementing a cloud computing service arrangement. This standard aligns the accounting for implementation costs of hosting arrangements, regardless of whether they convey a license to the hosted software. The guidance is effective for fiscal years beginning after December 15, 2019. The adoption of this standard effective January 1, 2020 on the Consolidated Financial Statements is not material.

Reference Rate Reform (Topic 848)

In March 2020, the FASB concluded its reference rate reform project and issued ASU 2020-04, Reference Rate Reform (Topic 848). London Interbank Offered Rate (LIBOR) is a benchmark interest rate referenced in a variety of agreements that are used by all types of entities. At the end of 2021, banks will no longer be required to report information that is used to determine LIBOR. As a result, LIBOR could be discontinued. Other interest rates used globally could also be discontinued for similar reasons. The ASU provides companies with optional guidance to ease the potential accounting burden associated with transitioning away from reference rates that are expected to be discontinued. The optional amendments are effective for all entities as of March 12, 2020, through December 31, 2022. The Company has elected to adopt ASU 2020-04 immediately for all optional expedients provided for contract modification accounting as permissible under the standard. The impact of executing the standard should the need arise will be disclosed, however, at this time there has been no impact to our Consolidated Financial Statements.

Recent Accounting Pronouncements Not Yet Effective

Simplifying the Accounting for Income Taxes

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The provisions of this update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. The adoption of this standard is not expected to have a material impact on the Company's financial statements. At this time the Company does not plan to early adopt the standard.

Reference Rate Reform (Topic 848)

In January 2021, the FASB issued ASU 2021-01, Reference Rate Reform (Topic 848): Scope, which temporarily simplifies the accounting for contract modifications, including hedging relationships, due to the transition from LIBOR and other interbank offered rates to alternative reference interest rates. For example, entities can elect not to remeasure the contracts at the modification date or reassess a previous accounting determination if certain conditions are met. Additionally, entities can elect to continue applying hedge accounting for hedging relationships affected by reference rate reform if certain conditions are met. The new standard was effective upon issuance and generally can be applied to applicable contract modifications through December 31, 2022. We are currently evaluating the impact of the transition from LIBOR to alternative reference interest rates, but do not expect a significant impact to our operating results, financial position or cash flows.

2. Inventories

Major classes of inventories are presented below. Readily Marketable Inventories are agricultural commodity inventories such as corn, soybeans, wheat, and ethanol co-products, among others, carried at net realizable value which approximates fair value based on their commodity characteristics, widely available markets, and pricing mechanisms. The net realizable value of RMI is calculated as the fair value (spot price of the commodity in an exchange), less cost of disposal and transportation based on the local market. All other inventories are held at lower of cost or net realizable value.

	December 31,			
(in thousands)	2020		2019	
Grain and other agricultural products (a)	\$ 1,025,809	\$	907,482	
Frac sand and propane	12,477		15,438	
Ethanol and co-products (b)	114,895		95,432	
Plant nutrients and cob products	139,885		146,164	
Railcar repair parts	 7,627		6,020	
	\$ 1,300,693	\$	1,170,536	

⁽a) Includes RMI of \$972.8 million and \$852.6 million at December 31, 2020 and December 31, 2019, respectively.

Inventories do not include 3.0 million and 6.4 million bushels of grain and other agricultural product inventories held in storage for others as of December 31, 2020 and December 31, 2019, respectively. The Company does not have title to the inventory and is only liable for any deficiencies in grade or shortage of quantity that may arise during the storage period. Management has not experienced historical losses with regard to any deficiencies and does not anticipate material losses in the future.

For the year ended December 31, 2020, the Company recorded an \$11.7 million lower of cost or net realizable value charge related to lower ethanol market prices as a result of the COVID-19 pandemic.

3. Property, Plant and Equipment

The components of property, plant and equipment are as follows:

	December 31,			
(in thousands)		2020		2019
Land	\$	40,222	\$	40,442
Land improvements and leasehold improvements		96,700		103,148
Buildings and storage facilities		387,992		373,961
Machinery and equipment		925,074		835,156
Construction in progress		19,725		59,993
	'	1,469,713		1,412,700
Less: accumulated depreciation		(590,534)		(474,282)
Property, plant and equipment, net	\$	879,179	\$	938,418

Capitalized interest was de minimis and \$2.2 million for the years ended December 31, 2020 and 2019, respectively.

Depreciation expense on property, plant and equipment amounted to \$125.7 million, \$82.3 million and \$46.5 million for the years ended 2020, 2019 and 2018, respectively. The large increase in depreciation expense from the prior years was due to the TAMH merger in October of 2019 and ELEMENT starting its operations in August of 2019.

In December 2019, the Company recorded charges of \$32.3 million for impairment of property, plant and equipment in the Trade segment related to its frac sand assets. The Company also recorded a \$3.7 million impairment of property, plant, and equipment in the Trade segment related to its Tennessee grain assets, of which \$3.1 million was recorded in the second quarter of 2019.

⁽b) Includes RMI of \$10.4 million and \$10.6 million at December 31, 2020 and December 31, 2019, respectively.

In June 2018, the Company recorded charges totaling \$1.6 million for impairment of property, plant and equipment in the Trade segment related to assets that were reclassified as assets held for sale at June 30, 2018 and were sold in the third quarter of 2018.

Rail Assets

The components of the Rail assets leased to others are as follows:

	 December 31,			
(in thousands)	 2020		2019	
Rail assets leased to others	\$ 750,473	\$	723,004	
Less: accumulated depreciation	 (158,527)		(138,706)	
Rail assets, net	\$ 591,946	\$	584,298	

Depreciation expense on Rail assets leased to others amounted to \$30.8 million, \$28.5 million and \$24.7 million for the years ended 2020, 2019 and 2018, respectively.

In June 2018, the Company recorded charges of \$4.7 million for impairment of Rail assets leased to others that had been reclassified as assets held for sale at June 30, 2018. These assets were sold during the second half of 2018. There were no Rail asset impairment charges taken in 2019 or 2020.

4. Debt

The Company's short-term and long-term debt at December 31, 2020 and 2019 consisted of the following:

	December 31,			
(in thousands)		2020		2019
Short-term debt – non-recourse	\$	93,192	\$	54,029
Short-term debt – recourse		310,511		93,002
Total short-term debt		403,703		147,031
Current maturities of long-term debt – non-recourse		6,438		9,545
Current maturities of long-term debt – recourse		69,037		53,354
Total current maturities of long-term debt		75,475		62,899
Long-term debt, less: current maturities – non-recourse		143,406		330,250
Long-term debt, less: current maturities – recourse		773,134		685,998
Total long-term debt, less: current maturities	\$	916,540	\$	1,016,248

On October 23, 2020, the Company entered into a new amendment to its credit agreement dated January 11, 2019. The amendment provides for an incremental \$150.0 million term loan maturing January 11, 2026, with quarterly principal payments. This term loan replaced The Andersons Railcar Leasing Company LLC's ("TARLC") existing credit facility. Borrowings under the loan bear interest at variable rates, which are based on LIBOR plus an applicable spread. Proceeds from the loan have been used to extinguish debt of TARLC, a wholly owned subsidiary. The TARLC debt was hedged by interest rate swaps and due to the debt prepayment, these swaps were redesignated or terminated which resulted in an approximately \$2.8 million loss on existing Accumulated Other Comprehensive Income balances which were reclassified into earnings. The Company also incurred approximately \$0.3 million of losses due to the write off of unamortized debt issuance costs associated to the TARLC debt.

The Company was in compliance with all financial covenants at and during the years ended December 31, 2020 and 2019.

Total interest paid was \$51.6 million, \$59.6 million and \$29.6 million for the years ended December 31, 2020, 2019 and 2018, respectively.

As of December 31, 2020 and 2019, the estimated fair value of long-term debt, including the current portion, was \$1,026.8 million and \$1,096.0 million, respectively. The Company estimates the fair value of it's long-term debt based upon the Company's credit standing and current interest rates offered by the Company on similar bonds and rates currently available to the Company for long-term borrowings with similar terms and remaining maturities.

At December 31, 2020, the Company had short-term lines of credit capacity totaling \$1,157.2 million, of which \$728.6 million was unused. The weighted average interest rates on short-term borrowings outstanding at December 31, 2020 and 2019, were 1.66% and 3.24%, respectively.

Long-Term Debt

Recourse Long-Term Debt

	 Decem	ber 3	1,
(in thousands, except percentages)	2020		2019
Note payable, variable rate (1.85% at December 31, 2020), payable in increasing amounts plus interest, due 2026	\$ 225,000	\$	237,500
Note payable, variable rate (1.60% at December 31, 2020), payable in increasing amounts plus interest, due 2026	150,000		_
Note payable, variable rate (1.60% at December 31, 2020), payable in increasing amounts plus interest, due 2024	145,000		157,500
Note payable, 4.50%, payable at maturity, due 2034 (a)	102,524		105,000
Finance lease obligations, due serially to 2030 (a)	36,484		38,482
Note payable, 4.07%, payable at maturity, due 2021	26,000		26,000
Note payable, 4.85%, payable at maturity, due 2026	25,000		25,000
Note payable, 4.55%, payable at maturity, due 2023	24,000		24,000
Note payable, 3.33%, payable in increasing amounts plus interest, due 2025 (a)	22,634		23,780
Note payable, 3.29%, payable in increasing amounts plus interest, due 2022 (a)	16,028		17,497
Note payable, 4.50%, payable at maturity, due 2030	16,000		16,000
Note payable, 5.00%, payable at maturity, due 2040	14,000		14,000
Note payable, variable rate (1.77% at December 31, 2020), payable quarterly, due 2024 (a)	11,250		12,250
Industrial revenue bond, variable rate (1.88% at December 31, 2020), payable at maturity, due 2036	21,000		21,000
Debenture bonds, 2.65% to 4.50%, payable in increasing amounts plus interest, due 2021 through 2031	12,730		26,075
Industrial revenue bond, variable rate, paid 2020			3,100
	847,650		747,184
Less: current maturities	69,037		53,353
Less: unamortized prepaid debt issuance costs	5,479		7,833
	\$ 773,134	\$	685,998

⁽a) Debt is collateralized by first mortgages on certain facilities and related equipment or other assets with a book value \$172.4 million.

The aggregate annual maturities of recourse, long-term debt are as follows: 2021 -- \$69.0 million; 2022 -- \$57.0 million; 2023 -- \$65.2 million; 2024 -- \$143.6 million; 2025 -- \$44.6 million; and \$468.2 million thereafter.

Non-Recourse Long-Term Debt

The Company's non-recourse long-term debt consists of the following:

	Decemb					
(in thousands)		2020		2019		
Note payable, variable rate (3.29% at December 31, 2020), payable at maturity, due 2027	\$	70,000	\$	66,094		
Note payable, variable rate (2.89% at December 31, 2020) payable at maturity, due 2024		56,600		_		
Non-recourse financing obligations, 3.89% to 4.94% , payable at maturity, due 2021 through 2026		21,974		28,855		
Finance lease obligations, due serially to 2023		2,825		655		
Line of credit, variable rate, paid 2020		_		180,000		
Industrial revenue bond, variable rate, paid 2020		_		49,500		
Note payable, variable rate, paid 2020				15,465		
		151,399		340,569		
Less: current maturities		6,438		9,545		
Less: unamortized prepaid debt issuance costs		1,555		774		
	\$	143,406	\$	330,250		

The aggregate annual maturities of non-recourse, long-term debt are as follows: 2021 -- \$6.4 million; 2022 -- \$15.5 million; 2023 -- \$11.6 million; 2024 -- \$74.9 million; 2025 -- \$10.5 million; and \$32.5 million thereafter.

5. Derivatives

Commodity Contracts

The Company's operating results are affected by changes to commodity prices. The Trade and Ethanol businesses have established "unhedged" futures position limits (the amount of a commodity, either owned or contracted for, that does not have an offsetting derivative contract to lock in the price). To reduce the exposure to market price risk on commodities owned and forward purchase and sale contracts, the Company enters into exchange traded commodity futures and options contracts and over-the-counter forward and option contracts with various counterparties. These contracts are primarily traded via regulated commodity exchanges. The Company's forward purchase and sales contracts are for physical delivery of the commodity in a future period. Contracts to purchase commodities from producers generally relate to the current or future crop years for delivery periods quoted by regulated commodity exchanges. Most contracts for the sale of commodities to processors or other commercial consumers generally do not extend beyond one year.

Most of these contracts meet the definition of derivatives. While the Company considers its commodity contracts to be effective economic hedges, the Company does not designate or account for its commodity contracts as hedges as defined under current accounting standards. The Company primarily accounts for its commodity derivatives at estimated fair value. The estimated fair value of the commodity derivative contracts that require the receipt or posting of cash collateral is recorded on a net basis (offset against cash collateral posted or received, also known as margin deposits) within commodity derivative assets or liabilities. Management determines fair value based on exchange-quoted prices and in the case of its forward purchase and sale contracts, estimated fair value is adjusted for differences in local markets and non-performance risk. For contracts for which physical delivery occurs, balance sheet classification is based on estimated delivery date. For futures, options and over-the-counter contracts in which physical delivery is not expected to occur but, rather, the contract is expected to be net settled, the Company classifies these contracts as current or noncurrent assets or liabilities, as appropriate, based on the Company's expectations as to when such contracts will be settled.

Realized and unrealized gains and losses in the value of commodity contracts (whether due to changes in commodity prices, changes in performance or credit risk, or due to sale, maturity or extinguishment of the commodity contract) and commodity inventories are included in cost of sales and merchandising revenues.

Generally accepted accounting principles permit a party to a master netting arrangement to offset fair value amounts recognized for derivative instruments against the right to reclaim cash collateral or obligation to return cash collateral under the same master netting arrangement. The Company has master netting arrangements for its exchange traded futures and options contracts and certain over-the-counter contracts. When the Company enters into a future, option or an over-the-counter contract, an initial margin deposit may be required by the counterparty. The amount of the margin deposit varies by commodity. If the market price of a future, option or an over-the-counter contract moves in a direction that is adverse to the Company's position, an additional margin deposit, called a maintenance margin, is required. The margin deposit assets and liabilities are included in short-term commodity derivative assets or liabilities, as appropriate, in the Consolidated Balance Sheets.

The following table presents at December 31, 2020 and 2019, a summary of the estimated fair value of the Company's commodity derivative instruments that require cash collateral and the associated cash posted/received as collateral. The net asset or liability positions of these derivatives (net of their cash collateral) are determined on a counterparty-by-counterparty basis and are included within current or non-current commodity derivative assets (or liabilities) on the Consolidated Balance Sheets:

(in thousands)	Dece	ember 31, 2020	Dece	ember 31, 2019
Cash collateral paid	\$	208,670	\$	56,005
Fair value of derivatives		(157,301)		(10,323)
Net derivative asset position	\$	51,369	\$	45,682

The following table presents, on a gross basis, current and non-current commodity derivative assets and liabilities:

(in thousands)	Commodity Derivative Assets - Current		erivative Assets - Derivative Assets -		Commodity Derivative Liabilities - Current			Commodity Derivative Liabilities - Noncurrent	Total		
Commodity derivative assets	\$	304,533	\$	4,328	\$	19,386	\$	14	\$	328,261	
Commodity derivative liabilities		(192,023)		(348)		(166,850)		(243)		(359,464)	
Cash collateral paid		208,196		<u> </u>		474		<u> </u>		208,670	
Balance sheet line item totals	\$	320,706	\$	3,980	\$	(146,990)	\$	(229)	\$	177,467	

					De	cember 31, 2019	December 31, 2019											
(in thousands)	Commodity Derivative Assets - Current			Commodity vivative Assets - Noncurrent	Commodity Derivative Liabilities - Current		Commodity Derivative Liabilities - Noncurrent		Total									
Commodity derivative assets	\$	92,429	\$	1,045	\$	7,439	\$	18	\$	100,931								
Commodity derivative liabilities		(40,571)		(96)		(54,381)		(523)		(95,571)								
Cash collateral paid		56,005						<u> </u>		56,005								
Balance sheet line item totals	\$	107,863	\$	949	\$	(46,942)	\$	(505)	\$	61,365								

The net pre-tax gains and losses on commodity derivatives not designated as hedging instruments included in the Company's Consolidated Statements of Operations and the line items in which they are located for the years ended December 31, 2020, 2019 and 2018 are as follows:

	Year I	Inded Decem	ber 31,	
(in thousands)	2020	2019	2018	-
Gains (losses) on commodity derivatives included in Cost of sales and merchandising	\$ (36,563)	\$ 1.939	\$ 4.236	İ
revenues	+ (,)	4 1,,,,,	Ψ .,=υ υ	

The Company had the following volume of commodity derivative contracts outstanding (on a gross basis) as of December 31, 2020 and 2019:

	December 31, 2020								
(in thousands)	Number of Bushels	Number of Gallons	Number of Pounds	Number of Tons					
Non-exchange traded:									
Corn	684,654	_		_					
Soybeans	73,521	_	_	_					
Wheat	109,661	_		_					
Oats	27,482	_	_	_					
Ethanol	_	124,795		_					
Corn oil	_	_	36,015	_					
Soybean oil	_	_	26,510	_					
Other	4,371	2,058	740	1,859					
Subtotal	899,689	126,853	63,265	1,859					
Exchange traded:									
Corn	267,792	_	_	_					
Soybeans	53,730	_	_	_					
Wheat	80,733	_	_	_					
Oats	1,800	_	_	_					
Ethanol	_	73,584	_	_					
Propane	_	17,094	_	_					
Other	_	2,898	14	149					
Subtotal	404,055	93,576	14	149					
Total	1,303,744	220,429	63,279	2,008					

		December 31, 2019								
(in thousands)	Number of Bushels	Number of Gallons	Number of Pounds	Number of Tons						
Non-exchange traded:										
Corn	552,359	_	_	_						
Soybeans	34,912	_	_	_						
Wheat	100,996	_	_	_						
Oats	24,700	_	_							
Ethanol	_	116,448	_	_						
Corn oil	_	_	14,568							
Other	11,363	4,000	305	2,263						
Subtotal	724,330	120,448	14,873	2,263						
Exchange traded:										
Corn	221,740	_	<u> </u>							
Soybeans	39,145	_	_	_						
Wheat	68,171	_	<u> </u>							
Oats	2,090	_	_	_						
Ethanol	_	175,353	<u> </u>							
Propane	_	5,166	_	_						
Other	_	15	<u> </u>	232						
Subtotal	331,146	180,534		232						
Total	1,055,476	300,982	14,873	2,495						

Interest Rate and Other Derivatives

The Company's objectives in using interest rate derivatives are to add stability to interest expense and to manage its exposure to interest rate movements. To accomplish these objectives, the Company primarily uses interest rate swaps as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount.

The gains or losses on the derivatives designated as hedging instruments are recorded in Other Comprehensive Income (Loss) and subsequently reclassified into interest expense in the same periods during which the hedged transaction affects earnings. Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest expense as interest payments are made on the Company's variable-rate debt. The Company also has foreign currency derivatives which are considered effective economic hedges of specified economic risks.

At December 31, 2020 and 2019, the Company had recorded the following amounts for the fair value of the Company's other derivatives:

 Decembe	er 31,
2020	2019
\$ (589)	\$ —
(430)	(1,007)
2,753	2,742
164	
(6,664)	(3,118)
\$ (18,539)	\$ (9,382)
	\$ (589) \$ (430) 2,753 164 (6,664)

The recording of derivatives gains and losses and the financial statement line item in which they are located are as follows:

	 Year ended Decei	nber 31,
(in thousands)	2020	2019
Derivatives not designated as hedging instruments		
Interest rate derivative gains (losses) included in Interest income (expense)	\$ (11) \$	(718)
Foreign currency derivative gains (losses) included in Other income, net	_	(437)
Derivatives designated as hedging instruments		
Interest rate derivative gains (losses) included in Other comprehensive income	(11,497)	(12,398)
Interest rate derivative gains (losses) included in Interest income (expense)	\$ (7,982) \$	(761)

The following table presents the open interest rate contracts at December 31, 2020:

Interest Rate Hedging Instrument	Year Entered	Year of Maturity	N A	Initial otional mount millions)	Hedged Item	Interest Rate
Long-term						
Swap	2014	2023	\$	23.0	Interest rate component of debt - not accounted for as a hedge	1.9%
Collar	2016	2021	\$	40.0	Interest rate component of debt - not accounted for as a hedge	3.5% to 4.8%
Swap	2017	2022	\$	20.0	Interest rate component of debt - accounted for as a hedge	1.8%
Swap	2018	2023	\$	10.0	Interest rate component of debt - accounted for as a hedge	2.6%
Swap	2018	2025	\$	20.0	Interest rate component of debt - accounted for as a hedge	2.7%
Swap	2019	2025	\$	100.0	Interest rate component of debt - accounted for as a hedge	2.5%
Swap	2019	2025	\$	50.0	Interest rate component of debt - accounted for as a hedge	2.5%
Swap	2019	2025	\$	50.0	Interest rate component of debt - accounted for as a hedge	2.5%
Swap	2020	2023	\$	50.0	Interest rate component of debt - accounted for as a hedge	0.0% to 0.8%
Swap	2020	2023	\$	50.0	Interest rate component of debt - accounted for as a hedge	0.0% to 0.7%
Swap	2020	2030	\$	50.0	Interest rate component of debt - accounted for as a hedge	0.0% to 0.8%
Swap	2020	2030	\$	50.0	Interest rate component of debt - accounted for as a hedge	0.0% to 0.8%

6. Employee Benefit Plans

The Company provides certain full-time employees with pension benefits under defined benefit and defined contribution plans. The measurement date for all plans is December 31. The Company's expense for its defined contribution plans amounted to \$8.1 million in 2020, \$8.8 million in 2019 and \$7.2 million in 2018. The Company also provides health insurance benefits to certain employees and retirees.

The Company has an unfunded noncontributory defined benefit pension plan. The plan provides defined benefits based on years of service and average monthly compensation using a career average formula. Pension benefits were frozen at July 1, 2010.

The Company also has postretirement health care benefit plans covering substantially all of its full-time employees hired prior to January 1, 2003. These plans are generally contributory and include a cap on the Company's share of the related costs.

Obligation and Funded Status

Following are the details of the obligation and funded status of the pension and postretirement benefit plans:

(in thousands)	Pension Benefits					Postretirement Benefits				
Change in benefit obligation		2020		2019		2020		2019		
Benefit obligation at beginning of year	\$	3,088	\$	4,362	\$	24,872	\$	20,638		
Service cost		_		_		221		365		
Interest cost		48		116		719		854		
Actuarial (gains) losses		68		44		452		4,687		
Participant contributions		_		_		298		297		
Benefits paid		(1,320)		(1,434)		(1,238)		(1,969)		
Benefit obligation at end of year	\$	1,884	\$	3,088	\$	25,324	\$	24,872		

(in thousands)	Pension	Benef	its	Postretirement Benefits					
Change in plan assets	2020 2019				2020	2019			
Fair value of plan assets at beginning of year	\$ _	\$	_	\$	_	\$	_		
Company contributions	1,320		1,434		940		1,672		
Participant contributions	_		_		298		297		
Benefits paid	(1,320)		(1,434)		(1,238)		(1,969)		
Fair value of plan assets at end of year	\$ 	\$		\$		\$	_		
Under funded status of plans at end of year	\$ (1,884)	\$	(3,088)	\$	(25,324)	\$	(24,872)		

Amounts recognized in the Consolidated Balance Sheets at December 31, 2020 and 2019 consist of:

	Pension Benefits Postre							Benefits
(in thousands)		2020		2019		2020		2019
Accrued expenses and other current liabilities	\$	1,014	\$	1,309	\$	1,310	\$	1,292
Other long-term liabilities		870		1,779		24,014		23,580
Net amount recognized	\$	1,884	\$	3,088	\$	25,324	\$	24,872

Following are the details of the pre-tax amounts recognized in accumulated other comprehensive loss at December 31, 2020:

		Pension	Benefits	Postretirement Benefits				
(in thousands)	Act	amortized uarial Net Losses	Prio	mortized r Service Costs		namortized tuarial Net Losses	Unamortized Prior Service Costs	
Balance at beginning of year	\$	3,034	\$		\$	(4,442)	\$	2,276
Amounts arising during the period		68		_		452		_
Amounts recognized as a component of net periodic benefit cost		(248)		_		(79)		911
Balance at end of year	\$	2,854	\$		\$	(4,069)	\$	3,187

Amounts applicable to the Company's defined benefit plans with accumulated benefit obligations in excess of plan assets are as follows:

	D	ecember	31,
(in thousands)	2020		2019
Projected benefit obligation	\$ 1,8	84 \$	3,088
Accumulated benefit obligation	\$ 1,8	84 \$	3,088

The combined benefits expected to be paid for all Company defined benefit plans over the next ten years are as follows:

(in thousands)	Expected Pension Benefit Payout	Expected Postretirement Benefit Payout
2021	\$ 1,014	\$ 1,310
2022	259	1,328
2023	207	1,324
2024	207	1,316
2025	193	1,328
2026-2030	4	6,577

Following are components of the net periodic benefit cost for each year:

			Postretirement Benefits								
	 December 31,					December 31,					
(in thousands)	2020 2019				2018	2020		2019		2018	
Service cost	\$ _	\$		\$	_	\$	221	\$	365	\$	319
Interest cost	48		116		130		719		854		752
Expected return on plan assets	_		_		_		(911)		(911)		(910)
Recognized net actuarial loss	248		232		243		79				
Net periodic benefit cost	\$ 296	\$	348	\$	373	\$	108	\$	308	\$	161

Following are weighted average assumptions of pension and postretirement benefits for each year:

	Postretirement Benefits					
	2020	2019	2018			
Used to Determine Benefit Obligations at Measurement Date						
Discount rate (a)	2.2 %	3.0 %	4.1 %			
Used to Determine Net Periodic Benefit Cost for Years ended December 31						
Discount rate (b)	3.0 %	4.1 %	3.4 %			
Expected long-term return on plan assets	_	_	_			
Rate of compensation increases	_	_				

- (a) The calculated rate for the unfunded employee retirement plan was 0.50%, 2.00% and 3.20% in 2020, 2019, and 2018, respectively. Since it was terminated in 2015, the defined benefit pension plan did not have a discount rate during the three-year period presented above.
- (b) The calculated rate for the unfunded employee retirement plan was 2.00%, 3.20% and 2.50% in 2020, 2019, and 2018, respectively. Since it was terminated in 2015, the defined benefit pension plan did not have a discount rate during the three-year period presented above.

Assumed Health Care Cost Trend Rates at Beginning of Year

	2020	2019
Health care cost trend rate assumed for next year	3.0 %	3.0 %
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate) (a)	N/A	N/A
Year that the rate reaches the ultimate trend rate (a)	N/A	N/A

⁽a) In 2017, the Company's remaining uncapped participants were converted to a Medicare Exchange Health Reimbursement Arrangement, which put a 2% cap on the Company's share of the related costs.

7. Revenue

Many of the Company's revenues are generated from contracts that are outside the scope of ASC 606 and thus are accounted for under other accounting standards. Specifically, many of the Company's Trade and Ethanol sales contracts are derivatives under ASC 815, *Derivatives and Hedging* and the Rail segment leasing revenue is accounted for under ASC 842, *Leases*. The breakdown of revenues between ASC 606 and other standards is as follows:

	Year ended December 31,							
(in thousands)	2020		2019		2018			
Revenues under ASC 606	\$ 1,527,141	\$	1,391,848	\$	898,885			
Revenues under ASC 815	6,584,909		6,659,932		2,040,866			
Revenues under ASC 842	96,386		118,411		105,631			
Total revenues	\$ 8,208,436	\$	8,170,191	\$	3,045,382			

Disaggregation of revenue

The following tables disaggregate revenues under ASC 606 by major product/service line:

	Year ended December 31, 2020												
(in thousands)		Trade		Ethanol		ant Nutrient		Rail	Total				
Specialty nutrients	\$	_	\$	_	\$	234,806	\$	_	\$	234,806			
Primary nutrients		_		_		396,515		_		396,515			
Service		9,030		_		5,108		36,852		50,990			
Products and co-products		234,219		408,677		_		_		642,896			
Frac sand and propane		148,175		_		_		_		148,175			
Other		14,569		2,057		26,530		10,603		53,759			
Total	\$	405,993	\$	410,734	\$	662,959	\$	47,455	\$	1,527,141			

	Year ended December 31, 2019									
(in thousands)		Trade		Ethanol		Plant Nutrient		Rail		Total
Specialty nutrients	\$	46,065	\$	_	\$	239,051	\$	_	\$	285,116
Primary nutrients		33,612		_		377,648				411,260
Service		13,108		8,775		4,202		36,926		63,011
Products and co-products		217,297		131,178		_		_		348,475
Frac sand and propane		238,100		_		_		_		238,100
Other		8,634		860		25,829		10,563		45,886
Total	\$	556,816	\$	140,813	\$	646,730	\$	47,489	\$	1,391,848

	Year ended December 31, 2018										
(in thousands)		Trade		Ethanol		Plant Nutrient		Rail		Total	
Specialty nutrients	\$	_	\$	_	\$	260,821	\$	_	\$	260,821	
Primary nutrients						399,566				399,566	
Service		11,347		14,105		4,411		35,179		65,042	
Products and co-products				114,489		_				114,489	
Other		1,035				25,738		32,194		58,967	
Total	\$	12,382	\$	128,594	\$	690,536	\$	67,373	\$	898,885	

For the years ended December 31, 2020, 2019 and 2018 approximately 3%, 4% and 7% of revenues, respectively, are accounted for under ASC 606 are recorded over time which primarily relate to service revenues noted above.

Specialty and primary nutrients

The Company sells several different types of specialty nutrient products, including: low-salt liquid starter fertilizers, micronutrients and other specialty lawn products. These products can be sold through the wholesale distribution channels as well as directly to end users at the farm center locations. Similarly, the Company sells several different types of primary nutrient products, including nitrogen, phosphorus and potassium. These products may be purchased and re-sold as is or sold as finished goods resulting from a blending and manufacturing process. The contracts associated with specialty and primary nutrients generally have just a single performance obligation, as the Company has elected the accounting policy to consider shipping and handling costs as fulfillment costs. Revenue is recognized when control of the product has passed to the customer. Payment terms generally range from 0 - 30 days.

Service

Service revenues primarily relate to the railcar repair business. The Company owns several railcar repair shops which repair railcars through specific contracts with customers or by operating as an agent for a particular railroad to repair cars that are on its rail line per Association of American Railroads standards. These contracts contain a single performance obligation which is to complete the requested and/or required repairs on the railcars. As the customer simultaneously receives and consumes the benefit of the repair work performed, revenue for these contracts is recognized over time. The Company uses an input-based measure of progress using costs incurred to total expected costs as that is the measure that most faithfully depicts progress towards satisfying the performance obligation. Upon completion of the work, the invoice is sent to the customer, with payment terms that generally range from 0 - 30 days.

Products and co-products

In addition to the ethanol sales contracts that are considered derivative instruments, the Ethanol Group sells several other coproducts that remain subject to ASC 606, including E-85, DDGs, syrups and renewable identification numbers ("RINs"). RINs are credits for compliance with the Environmental Protection Agency's Renewable Fuel Standard program and are created by renewable fuel producers. Contracts for these co-products generally have a single performance obligation, as the Company has elected the accounting policy to consider shipping and handling costs as fulfillment costs. Revenue is recognized when control of the product has passed to the customer which follows shipping terms on the contract. Payment terms generally range from 5 - 15 days.

Frac sand and propane

Sand products and propane products are primarily sold to United States customers in the energy industry. Revenue is recognized at a point in time when obligations under the terms of a contract with the customer are satisfied. This occurs with the transfer of control of our products to customers when products are shipped for direct sales to customers or when the product is picked up by a customer either at the plant location or transload location. Contracts contain one performance obligation which is the delivery to the customer at a point in time. Revenue is measured as the amount of consideration received in exchange for transferring products. The Company recognizes the cost for shipping as an expense in cost of sales and merchandising revenues when control over the product has transferred to the customer. Payment terms generally range from 0 - 30 days.

Contract balances

The opening and closing balances of the Company's contract liabilities are as follows:

(in thousands)	2020		2019
Balance at January 1	\$ 28,46	57 \$	28,858
Balance at December 31	45,63	4	28,467

The difference between the opening and closing balances of the Company's contract liabilities primarily results from the timing difference between the Company's performance and the customer's payment. Contract liabilities relate to the Plant Nutrient business for payments received in advance of fulfilling our performance obligations under our customer contracts. Contract liabilities are built up at year-end and through the first quarter as a result of payments in advance of fulfilling our performance obligations under our customer contracts in preparation for the spring planting season. The contract liabilities are then relieved as obligations are met through the year and begin to build in preparation for a new season as we approach year-end.

Leasing

We lease railcars and other operating assets under full-service and net operating leases. We price full-service leases as an integrated service that includes amounts related to maintenance, insurance, and ad valorem taxes. In accordance with applicable guidance, we do not separate lease and non-lease components when reporting revenue for our full-service operating leases. In some cases, we lease railcars that, at commencement, are classified as sales-type leases. For certain operating leases, revenue is based on equipment usage and is recognized when earned. Typically, our leases do not provide customers with renewal options or options to purchase the asset, however, a portion of our leases do contain month-to-month provisions upon expiration of the initial lease period. Our lease agreements do not generally have residual value guarantees. We collect reimbursements from customers for damage to our railcars, as well as additional rental payments for usage above specified levels, as provided in the lease agreements.

The Company's revenues under ASC 842 are as follows:

	Year ended December 31,			nber 31,
(in thousands)		2020		2019
Operating lease revenue	\$	90,672	\$	105,124
Sales-type lease revenue		538		8,014
Variable lease revenue		5,176		5,273
Total revenues	\$	96,386	\$	118,411

8. Income Taxes

Income tax provision (benefit) applicable to continuing operations consists of the following:

	Year ended December 31,					
(in thousands)	2020		2019		2018	
Current:						
Federal	\$	(42,718)	\$ 1,079	\$	(549)	
State and local		(748)	1,215		323	
Foreign		7,133	4,361		1,138	
		(36,333)	6,655		912	
Deferred:						
Federal		29,158	4,409		10,073	
State and local		1,127	1,925		578	
Foreign		(4,211)	62		367	
		26,074	6,396		11,018	
Total:						
Federal		(13,560)	5,488		9,525	
State and local		379	3,140		901	
Foreign		2,922	4,423		1,505	
	\$	(10,259)	\$ 13,051	\$	11,931	

Income (loss) before income taxes from continuing operations consists of the following:

	Year ended December 31,					
(in thousands)		2020		2019		2018
U.S.	\$	(38,419)	\$	18,982	\$	46,678
Foreign		13,945		9,129		6,478
	\$	(24,474)	\$	28,111	\$	53,156

A reconciliation from the statutory U.S. federal tax rate to the effective tax rate follows:

	Year ended December 31,			
	2020	2019	2018	
Statutory U.S. federal tax rate	21.0 %	21.0 %	21.0 %	
Increase (decrease) in rate resulting from:				
State and local income taxes, net of related federal taxes	4.6	7.3	3.4	
U.S. tax rate change and other tax law impacts (a)	60.2	2.1	(1.5)	
Effect of noncontrolling interest	(18.8)	2.4	0.1	
Derivative instruments and hedging activities	(13.0)	_	_	
Income taxes on foreign earnings	(6.8)	(0.6)	(1.5)	
Nondeductible compensation	(6.1)	4.6	1.5	
Release (accrual) of unrecognized tax benefits	2.7	3.9	(0.1)	
Tax effect of GILTI	_	0.4	1.4	
Research and development and other tax credits	1.4	(23.2)	(3.4)	
Equity method investments	(0.1)	5.7	1.1	
Acquisition related permanent item	_	24.0	_	
Other, net	(3.2)	(1.2)	0.5	
Effective tax rate	41.9 %	46.4 %	22.5 %	

⁽a) Reflects the impact of the CARES Act which provided a financial statement benefit of \$14.8 million.

Net income taxes of \$2.4 million were paid in 2020, net income taxes of \$2.0 million were paid in 2019, and net income taxes of \$5.4 million were received in 2018.

Significant components of the Company's deferred tax liabilities and assets are as follows:

	 Decem	ber 3	31,
(in thousands)	2020		2019
Deferred tax liabilities:			
Property, plant and equipment and Rail assets leased to others	\$ (203,432)	\$	(149,317)
Identifiable intangibles	(9,677)		(13,736)
Investments	(50,244)		(41,354)
Other	(7,878)		(10,228)
	(271,231)		(214,635)
Deferred tax assets:			
Employee benefits	20,910		20,583
Accounts and notes receivable	4,207		3,577
Inventory	1,905		2,437
Federal income tax credits	25,163		12,005
Deferred interest (b)	359		2,385
Net operating loss carryforwards	25,427		5,259
Derivatives instruments	5,949		3,123
Lease liability	9,068		11,072
Other	9,548		8,970
Total deferred tax assets	102,536		69,411
less: Valuation allowance	1,452		931
	101,084		68,480
Net deferred tax liabilities	\$ (170,147)	\$	(146,155)

⁽b) The deferred interest tax asset represents disallowed interest deductions under IRC Section 163(j) (Limitation on Deduction for interest on Certain Indebtedness) for the current year. The disallowed interest is able to be carried forward indefinitely and utilized in future years pursuant to IRC Section 163(j)).

On December 31, 2020, the Company had \$74.8 million, \$204.0 million and \$1.9 million of U.S. Federal, state and non-U.S. net operating loss carryforwards that begin to expire in 2035, 2021 and 2034, respectively. The Company also has \$16.1 million of general business credits that expire after 2032 and \$7.9 million of foreign tax credits that begin to expire after 2034.

Additionally, the company has elected to treat Global Intangible Low Tax Income ("GILTI"), as a period cost and, therefore, has not recognized deferred taxes for basis differences that may reverse as GILTI tax in future years. As of December 31, 2020, there was no financial statement impact related to GILTI.

Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. If it is more-likely-than-not that the deferred tax asset will be realized, no valuation allowance is recorded. Management's judgment is required in determining the provision for income taxes, deferred tax assets and liabilities and the valuation allowance recorded against the net deferred tax assets. The valuation allowance would need to be adjusted in the event future taxable income is materially different than amounts estimated. Significant judgments, estimates and factors considered by management in its determination of the probability of the realization of deferred tax assets include:

- Historical operating results
- Expectations of future earnings
- Tax planning strategies; and
- The extended period of time over which retirement, medical, and pension liabilities will be paid.

Our unrecognized tax benefits represent tax positions for which reserves have been established. As of December 31, 2020, 2019 and 2018, if our unrecognized tax benefits were recognized in future periods, they would favorably impact our effective tax rate. A reconciliation of theses unrecognized tax benefits is as follows:

(in thousands)	
Balance at January 1, 2018	\$ 787
Reductions as a result of a lapse in statute of limitations	 (169)
Balance at December 31, 2018	618
Additions based on tax positions related to the current year	1,766
Additions based on tax positions related to prior years	20,649
Reductions based on tax positions related to prior years	(155)
Reductions as a result of a lapse in statute of limitations	(463)
Balance at December 31, 2019	22,415
Additions based on tax positions related to the current year	11,598
Additions based on tax positions related to prior years	12,013
Reductions based on tax positions related to prior years	(1,566)
Reductions as a result of a lapse in statute of limitations	(59)
Balance at December 31, 2020	\$ 44,401

As of December 31, 2020, 2019 and 2018, the total amount of unrecognized tax benefits was \$44.4 million, \$22.4 million and \$0.6 million, respectively, of which in 2020 and 2019 the unrecognized tax benefits were primarily associated with R&D Credits.

For the years ended December 31, 2020 and 2019, the Company has not recognized deferred tax liabilities for temporary differences related to investments in foreign subsidiaries that were deemed permanently reinvested. Determination of the amount of unrecognized deferred income tax liabilities on these earnings is not practicable because such liability, if any, depends on certain circumstances existing and if/when remittance occurs. A deferred tax liability will be recognized if and when the Company no longer plans to permanently reinvest these undistributed earnings.

The Company's practice is to recognize interest and penalties on uncertain tax positions in the provision for income taxes in the Consolidated Statement of Operations. At December 31, 2020 and 2019, the company recorded reserves of \$1.8 million and \$2.1 million, respectively, of interest and penalties on uncertain tax positions in the Consolidated Balance Sheets.

The Company files tax returns in multiple jurisdictions and is subject to examination by taxing authorities in the U.S., multiple foreign, state and local jurisdictions. The Company's Mexican federal income tax return for tax year 2015 is currently under audit along with The Andersons Inc. for 2018. Four of the company's subsidiary partnership returns are under audit by the IRS for 2015. It is reasonably possible that audit settlements, the conclusion of current examinations or the expiration of the statute of limitations could change the Company's unrecognized tax benefits during the next twelve months. It is not possible to reasonably estimate the expected change to the total amount of unrecognized tax benefit in the next twelve months.

In addition to the audits listed above, the company has open tax years primarily from 2013 to 2018 with various taxing jurisdictions, including the U.S., Canada, Mexico and the U.K. These open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations as they relate to the amount, timing or inclusion of revenue and expenses or the sustainability of income tax credits for a given audit cycle. The Company has recorded a tax benefit only for those positions that meet the more-likely-than-not standard.

9. Accumulated Other Comprehensive Income (Loss)

The following table summarizes the changes in of accumulated other comprehensive income (loss) "AOCI" attributable to the Company for the twelve months ended December 31, 2020 and 2019:

		Year ended l	Decem	ber 31,
(in thousands)		2020		2019
Currency Translation Adjustment				
Beginning balance	\$	1,065	\$	(11,550)
Other comprehensive income (loss) before reclassifications		5,331		1,352
Amounts reclassified from accumulated other comprehensive income (loss) (a)		_		11,666
Tax effect		(657)		(403)
Other comprehensive income (loss), net of tax		4,674		12,615
Ending Balance	\$	5,739	\$	1,065
Cash Flow Hedges				
Beginning balance	\$	(9,443)	\$	(126)
Other comprehensive income (loss) before reclassifications		(19,565)		(13,608)
Amounts reclassified from accumulated other comprehensive income (loss) (b)		8,068		1,210
Tax effect		2,834		3,081
Other comprehensive income (loss), net of tax	'	(8,663)		(9,317)
Ending Balance	\$	(18,106)	\$	(9,443)
Pension and Other Postretirement Plans	'			
Beginning balance	\$	889	\$	5,031
Other comprehensive income (loss) before reclassifications		(200)		(4,498)
Amounts reclassified from accumulated other comprehensive income (loss) (c)		(911)		(911)
Tax effect		255		1,267
Other comprehensive income (loss), net of tax		(856)		(4,142)
Ending Balance	\$	33	\$	889
Investments in Convertible Preferred Securities				
Beginning balance	\$	258	\$	258
Other comprehensive income (loss), net of tax				_
Ending Balance	\$	258	\$	258
Total AOCI Ending Balance	\$	(12,076)	\$	(7,231)

⁽a) Reflects foreign currency translation adjustments in Other income, net attributable to the consolidation of Thompsons Limited in 2019.

⁽b) Amounts reclassified from gain (loss) on cash flow hedges are reclassified from AOCI to income when the hedged item affects earnings and is recognized in Interest expense, net. See Note 5 for additional information.

⁽c) This accumulated other comprehensive loss component is included in the computation of net periodic benefit cost recorded in Operating, administrative and general expenses.

10. Fair Value Measurements

Generally accepted accounting principles define fair value as an exit price and also establish a framework for measuring fair value. An exit price represents the amount that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. Fair value should be determined based on the assumptions that market participants would use in pricing the asset or liability. As a basis for considering such assumptions, a three-tier fair value hierarchy is used, which prioritizes the inputs used in measuring fair value as follows:

- Level 1 inputs: Quoted prices (unadjusted) for identical assets or liabilities in active markets;
- Level 2 inputs: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability either directly or indirectly; and
- Level 3 inputs: Unobservable inputs (e.g., a reporting entity's own data).

In many cases, a valuation technique used to measure fair value includes inputs from multiple levels of the fair value hierarchy. The lowest level of significant input determines the placement of the entire fair value measurement in the hierarchy.

The following table presents the Company's assets and liabilities measured at fair value on a recurring basis at December 31, 2020 and 2019:

(in thousands)		December	r 31,	2020	
Assets (liabilities)	Level 1	Level 2		Level 3	Total
Commodity derivatives, net (a)	\$ 51,369	\$ 126,098	\$	_	\$ 177,467
Provisionally priced contracts (b)	19,793	(48,818)			(29,025)
Convertible preferred securities (c)	_	_		8,849	8,849
Other assets and liabilities (d)	7,972	(26,058)		_	(18,086)
Total	\$ 79,134	\$ 51,222	\$	8,849	\$ 139,205
(in thousands)		December	r 31,	2019	
(in thousands) Assets (liabilities)	Level 1	December	r 31,	2019 Level 3	Total
	\$ Level 1 45,682	\$	r 31,		\$ Total 61,365
Assets (liabilities)	\$ 	\$ Level 2			\$
Assets (liabilities) Commodity derivatives, net (a)	\$ 45,682	\$ Level 2 15,683			\$ 61,365
Assets (liabilities) Commodity derivatives, net (a) Provisionally priced contracts (b)	\$ 45,682	\$ Level 2 15,683		Level 3 — — —	\$ 61,365 (186,651)

- (a) Includes associated cash posted/received as collateral
- (b) Included in "Provisionally priced contracts" are those instruments based only on underlying futures values (Level 1) and delayed price contracts (Level 2)
- (c) Recorded in "Other assets" on the Company's Consolidated Balance Sheets related to certain available for sale securities.
- (d) Included in other assets and liabilities are assets held by the Company to fund deferred compensation plans, ethanol risk management contracts, and foreign exchange derivative contracts (Level 1) and interest rate derivatives (Level 2).

Level 1 commodity derivatives reflect the fair value of the exchanged-traded futures and options contracts that the Company holds, net of the cash collateral that the Company has in its margin account.

The majority of the Company's assets and liabilities measured at fair value are based on the market approach valuation technique. With the market approach, fair value is derived using prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

The Company's net commodity derivatives primarily consist of futures or options contracts via regulated exchanges and contracts with producers or customers under which the future settlement date and bushels (or gallons in the case of ethanol contracts) of commodities to be delivered (primarily wheat, corn, soybeans and ethanol) are fixed and under which the price may or may not be fixed. Depending on the specifics of the individual contracts, the fair value is derived from the futures or options prices quoted on various exchanges for similar commodities and delivery dates as well as observable quotes for local basis adjustments (the difference, which is attributable to local market conditions, between the quoted futures price and the local cash price). Because "basis" for a particular commodity and location typically has multiple quoted prices from other agribusinesses in the same geographical vicinity and is used as a common pricing mechanism in the agribusiness industry, the Company has concluded that "basis" is typically a Level 2 fair value input for purposes of the fair value disclosure requirements related to our commodity derivatives, depending on the specific commodity. Although nonperformance risk, both of the Company and the counterparty, is present in each of these commodity contracts and is a component of the estimated fair values, based on the Company's historical experience with its producers and customers and the Company's knowledge of their businesses, the Company does not view nonperformance risk to be a significant input to fair value for these commodity contracts.

These fair value disclosures exclude RMI which consists of agricultural commodity inventories measured at net realizable value. The net realizable value used to measure the Company's agricultural commodity inventories is the fair value (spot price of the commodity in an exchange), less cost of disposal and transportation based on the local market. This valuation would generally be considered Level 2. The amount of RMI is disclosed in Note 2. Changes in the net realizable value of commodity inventories are recognized as a component of cost of sales and merchandising revenues.

Provisionally priced contract liabilities are those for which the Company has taken ownership and possession of a commodity, but the final purchase price has not been established. In the case of payables where the unpriced portion of the contract is limited to the futures price of the underlying commodity or the Company has delivered a provisionally priced commodity and a subsequent payable or receivable is set up for any future changes in the commodity price, quoted exchange prices are used and the liability is deemed to be Level 1 in the fair value hierarchy. For all other unpriced contracts which include variable futures and basis components, the amounts recorded for delayed price contracts are determined on the basis of local grain market prices at the balance sheet date and, as such, are deemed to be Level 2 in the fair value hierarchy.

The risk management contract liability allows related ethanol customers to effectively unprice the futures component of their inventory for a period of time, subjecting the bushels to market fluctuations. The Company records an asset or liability for the market value changes of the commodities over the life of the contracts based on quoted exchange prices and as such, the balance is deemed to be Level 1 in the fair value hierarchy.

The convertible preferred securities are interests in several early-stage enterprises that may be in various forms, such as convertible debt or preferred equity securities.

A reconciliation of beginning and ending balances for the Company's recurring fair value measurements using Level 3 inputs is as follows:

	Cor	nvertible Pre	ferred	erred Securities		
(in thousands)		2020		2019		
Assets at January 1,	\$	8,404	\$	7,154		
Additional investments		445		1,250		
Assets at December 31,	\$	8,849	\$	8,404		

The following tables summarize quantitative information about the Company's Level 3 fair value measurements as of December 31, 2020 and 2019:

Quantitative Information about Recurring Level 3 Fair Value Measurements

(in thousands)	Fair Value as of 12/31/2020		Valuation Method	Unobservable Input	Weighted Average
Convertible preferred securities (a)	\$	8,849	Implied based on market prices	N/A	N/A
(in thousands)	Fair Value as of 12/31/2019		Valuation Method	Unobservable Input	Weighted Average
Convertible preferred securities (a)	\$	8,404	Implied based on market prices	N/A	N/A

⁽a) The Company considers observable price changes and other additional market data available to estimate fair value, including additional capital raising, internal valuation models, progress towards key business milestones, and other relevant market data points.

Quantitative Information about Non-Recurring Level 3 Fair Value Measurements

(in thousands)	Value as 2/31/2019	Valuation Method	Unobservable Input	Weighted Average
Frac sand assets (a)	\$ 16,546	Third party appraisal	Various	N/A
Real property (b)	608	Market approach	Various	N/A
Equity method investment (c)	12,424	Discounted cash flow analysis	Various	N/A

⁽a) The Company recognized impairment charges on long lived related to its frac sand business. The fair value of the assets were determined using prior transactions and third-party appraisals. These measures are considered Level 3 inputs on a nonrecurring basis.

There were no non-recurring fair value measurements as of December 31, 2020.

The fair value of the Company's cash equivalents, accounts receivable and accounts payable approximate their carrying value as they are close to maturity.

11. Related Party Transactions

Equity Method Investments

The Company, directly or indirectly, holds investments in companies that are accounted for under the equity method. The Company's equity in these entities is generally presented at cost plus its accumulated proportional share of income or loss, less any distributions it has received, or other-than-temporary impairments recognized. The amount of equity method investments has decreased substantially from the prior year as two acquisitions in 2019 resulted in the consolidation of the former equity method investments. In January 2019, the Company purchased the remaining equity of LTG and Thompsons Limited and in October 2019, the Company merged its existing equity method ethanol investments to create the consolidated entity of TAMH.

⁽b) The Company recognized impairment charges on certain Trade assets and measured the fair value using Level 3 inputs on a nonrecurring basis. The fair value of the assets were determined using prior transactions in the local market and a recent sale of comparable Trade group assets held by the Company. (c) The Company recorded an other-than-temporary impairment charge on an existing equity method investment. The fair value of the investment was determined using a discounted cash flow analysis.

The following table presents aggregate summarized financial information of the Company's equity method investments as they qualified as significant equity method investees in the aggregate for the years ended December 31, 2019 and 2018. No individual equity investments qualified as significant for the years ended December 31, 2020, 2019 and 2018.

		December 31,	
(in thousands)	2020	2019	2018
Sales	\$ 1,625,686	\$ 1,930,289	\$ 6,111,036
Gross profit	32,467	39,253	257,594
Income from continuing operations	3,315	1,895	71,608
Net income	2,777	940	68,876
Current assets	370,190	255,052	1,111,826
Non-current assets	89,456	80,823	526,169
Current liabilities	296,074	196,163	792,184
Non-current liabilities	40,077	31,509	281,103

The following table presents the Company's investment balance in each of its equity method investees by entity:

		,		
(in thousands)		2020		2019
Providence Grain Group Inc.	\$	12,467	\$	12,424
Quadra Commodities S.A.		7,013		5,574
Other		6,981		5,859
Total	\$	26,461	\$	23,857

The following table summarizes income (losses) earned from the Company's equity method investments by entity:

	% ownership at	December 31,						
(in thousands)	December 31, 2020		2020		2019		2018	
The Andersons Albion Ethanol LLC (a)	N/A	\$	_	\$	(1,292)	\$	5,531	
The Andersons Clymers Ethanol LLC (a)	N/A		_		(151)		4,846	
The Andersons Marathon Ethanol LLC (a)	N/A		_		920		3,832	
Lansing Trade Group, LLC (b)	N/A		_				10,413	
Thompsons Limited (b)	N/A		_		_		2,568	
Providence Grain Group Inc. (c)	37.8%		(233)		(7,411)		_	
Quadra Commodities S.A. (c)	17.7%		1,439		910		_	
Other	5% - 52%		(568)		(335)		(49)	
Total		\$	638	\$	(7,359)	\$	27,141	

⁽a) The Company previously owned approximately 55%, 39%, 33% in The Andersons Albion LLC, The Andersons Clymers Ethanol LLC and The Andersons Marathon Ethanol LLC, respectively. Effective October 1, 2019, the Company contributed its interests in these three entities into TAMH. The transaction resulted in the consolidation of these entities into the Company's Consolidated Financial Statements.

Total distributions received from unconsolidated affiliates were de minimus for the year ended December 31, 2020.

Related Party Transactions

In the ordinary course of business and on an arms-length basis, the Company will enter into related party transactions with certain of the investments described above, along with other related parties.

⁽b) The Company previously owned approximately 32.5% of LTG. Effective January 1, 2019, the Company purchased the remaining equity of LTG. The transaction resulted in the consolidation of Thompsons Limited of Ontario, Canada and related entities, which LTG and the Company had equally owned. (c) The Company acquired the equity method investments in Providence Grain Group Inc. and Quadra Commodities S.A. through the consolidation of LTG in 2019.

The following table sets forth the related party transactions entered into for the time periods presented:

	December 31,					
(in thousands)		2020		2019		2018
Sales revenues	\$	176,768	\$	246,540	\$	358,856
Service fee revenues (a)		_		12,181		20,843
Purchases of product (b)		52,665		569,619		741,736
Lease income (c)		583		3,516		6,523
Labor and benefits reimbursement (d)		_		10,973		13,487

- (a) Prior period service fee revenues include management fees, corn origination fees, ethanol and distillers dried grains ("DDG") marketing fees, and other commissions. In the current period and in the fourth quarter of 2019 these revenues are now eliminated in consolidation as a result of the TAMH merger.
- (b) Prior period purchases of product include ethanol and co-products purchased from the unconsolidated ethanol LLCs. In the current period and in the fourth quarter of 2019 these purchases are now eliminated in consolidation as a result of the TAMH merger.
- (c) Prior period lease income includes certain railcars leased to related parties and the lease of the Company's Albion, Michigan and Clymers, Indiana grain facilities. In the current period and in the fourth quarter of 2019 this income is now eliminated in consolidation as a result of the TAMH merger.
- (d) Prior period labor and benefits reimbursement includes all operations labor to the unconsolidated ethanol LLCs. In the current period and in the fourth quarter of 2019 this reimbursement is now eliminated in consolidation as a result of the TAMH merger.

	Dec	ember.	31,		
(in thousands)	2020		2019		
Accounts receivable (e)	\$ 5,62	3 \$	10,603		
Accounts payable (f)	5,25	1	12,303		

- (e) Accounts receivable represents amounts due from related parties for sales of ethanol and other various items.
- (f) Accounts payable represents amounts due to related parties for purchases of equipment and other various items.

12. Segment Information

The Company's operations include four reportable business segments that are distinguished primarily on the basis of products and services offered as well as the structure of management. The Trade business includes commodity merchandising and the operation of terminal grain elevator facilities. The Ethanol business purchases and sells ethanol, and provides risk management, origination and management services to ethanol production facilities. The Plant Nutrient business manufactures and distributes agricultural inputs, primary nutrients and specialty fertilizers, to dealers and farmers, along with turf care and corncob-based products. Rail operations include the leasing, marketing and fleet management of railcars and other assets, railcar repair and metal fabrication. Included in Other are the corporate level costs not attributed to an operating segment. In January 2020, the Company moved its Lansing Vermont DDG business from the Trade group to the Ethanol group as part of internal restructuring efforts. Prior year results have been recast to reflect this change.

During the third quarter of 2020, the Company announced a change in the management structure of the business. The Trade and Ethanol Groups and the Rail and Plant Nutrient Groups were combined to be led by one Company president each. The Company considered current accounting guidance concluding that its reportable operating segments would not change under the new management structure as the aggregation criteria could not be met.

The segment information below includes the allocation of expenses shared by one or more operating segments. Although management believes such allocations are reasonable, the operating information does not necessarily reflect how such data might appear if the segments were operated as separate businesses. Inter-segment sales are made at prices comparable to normal, unaffiliated customer sales. The Company does not have any customers who represent 10 percent, or more, of total revenues.

	Year ended December 31,					
(in thousands)	2020	2019	2018			
Revenues from external customers						
Trade	\$ 6,141,402	\$ 6,144,526	\$ 1,433,660			
Ethanol	1,260,259	1,211,997	747,009			
Plant Nutrient	662,959	646,730	690,536			
Rail	143,816	166,938	174,177			
Total	\$ 8,208,436	\$ 8,170,191	\$ 3,045,382			

	Year ended December 31,					
(in thousands)		2020		2019		2018
Interest expense (income)						
Trade	\$	21,974	\$	34,843	\$	11,845
Ethanol		7,461		943		(1,890)
Plant Nutrient		5,805		7,954		6,499
Rail		17,491		16,486		11,377
Other		(1,456)		(535)		17
Total	\$	51,275	\$	59,691	\$	27,848
		Ves	r ei	nded December	31	
(in thousands)		2020	11 (1	2019	31,	2018
Equity in earnings (losses) of affiliates						
Trade	\$	638	\$	(6,835)	\$	12,932
Ethanol	Ψ	_	Ψ	(524)	Ψ	14,209
Total	<u> </u>	638	\$	(7,359)	•	27,141
	<u> </u>	030	Ψ	(1,339)	Ψ	27,141
		Yea	ır eı	nded December	31,	
(in thousands)		2020		2019		2018
Other income, net						
Trade	\$	11,954	\$	11,142	\$	843
Ethanol		2,795		913		2,766
Plant Nutrient		1,274		4,903		2,495
Rail		2,885		1,583		3,516
Other		1,540		1,568		6,382
Total	\$	20,448	\$	20,109	\$	16,002
		Vos		nded December	21	
(in thousands)		2020	11 61	2019	31,	2018
Income (loss) before income taxes attributable to the Company						
Trade	\$	24,687	\$	(17,328)	\$	21,715
Ethanol		(25,413)		50,907		27,076
Plant Nutrient		16,015		9,159		12,030
Rail		2,607		15,090		17,379
Other		(20,445)		(26,470)		(24,785)
Income (loss) before income taxes attributable to the Company		(2,549)		31,358		53,415
Income (loss) attributable to noncontrolling interests		(21,925)		(3,247)		(259)
Income (loss) before income taxes	\$	(24,474)	\$	28,111	\$	53,156
				Year ended l	Dece	
(in thousands)				2020	Jecc.	2019
Identifiable assets						
Trade			\$	2,486,412	\$	2,012,060
Ethanol			Ψ	666,839	Ψ	690,548
Plant Nutrient				374,653		383,781
Rail				676,154		693,931
Other				68,063		120,421
Total			•		¢	
1 Otta			\$	4,272,121	\$	3,900,741

	Year ended December 31,												
(in thousands)	2020 2019		2020 2019		2020 2019			2020 2019		2020 2019		2019 2018	
Capital expenditures													
Trade	\$	14,911	\$	31,173	\$	17,203							
Ethanol		39,791		104,023		101,320							
Plant Nutrient		16,565		20,413		15,723							
Rail		4,422		1,827		5,295							
Other		1,458		3,548		3,038							
Total	\$	77,147	\$	160,984	\$	142,579							
		Yes	ar e	nded December	r 31,								
(in thousands)		2020		2019		2018							
Depreciation and amortization													
Trade	\$	44,627	\$	50,973	\$	16,062							
Ethanol		73,224		23,727		6,136							
Plant Nutrient		25,407		25,985		26,871							
Rail		35,573		34,122		29,164							
Other		9,807		11,359		12,064							
Total	\$	188,638	\$	146,166	\$	90,297							
		**											
(in thousands)	_	2020	ır e	nded December 2019	31,	2018							
Revenues from external customers by geographic region		2020	_	2019		2010							
United States	\$	6,315,055	\$	6,350,643	\$	2,832,007							
Canada	Ψ	526,143	Ψ	666,289	Ψ	136,439							
Mexico		246,523		294,644		34							
Other		1,120,715		858,615		76,902							
Total	<u>\$</u>		\$	8,170,191	\$	3,045,382							
		- /= , 0	-	- , ,		- , - : - ; - 3 =							

The net book value of Trade property, plant and equipment in Canada as of December 31, 2020 and 2019 was \$39.9 million and \$41.2 million, respectively. The net book value of the leased railcars in Canada as of December 31, 2020 and 2019 was \$20.8 million and \$22.7 million, respectively.

13. Leases

The Company leases certain grain handling and storage facilities, ethanol storage terminals, warehouse space, railcars, locomotives, barges, office space, machinery and equipment, vehicles and information technology equipment under operating leases. Lease expense for these leases is recognized within the Consolidated Statements of Operations on a straight-line basis over the lease term, with variable lease payments recognized in the period those payments are incurred.

The following table summarizes the amounts recognized in the Company's Consolidated Balance Sheets related to leases:

			Decem	iber 31,				
(in thousands)	Consolidated Balance Sheet Classification	2020			heet Classification 2020			2019
Assets								
Operating lease assets	Right of use assets, net	\$	56,031	\$	76,401			
Finance lease assets	Property, plant and equipment, net		25,921		23,723			
Finance lease assets	Rail assets leased to others, net		15,824		17,465			
Total leased assets			97,776		117,589			
Liabilities								
Current operating leases	Accrued expenses and other current liabilities		19,575		25,700			
Non-current operating leases	Long-term lease liabilities		37,177		51,091			
Total operating lease liabilities			56,752		76,791			
Current finance leases	Current maturities of long-term debt		2,914		17,636			
Non-current finance leases	Long-term debt		36,394		21,501			
Total finance lease liabilities			39,308		39,137			
Total lease liabilities		\$	96,060	\$	115,928			

The components of lease cost recognized within the Company's Consolidated Statement of Operations were as follows:

			Year ended	Decen	ıber 31,
(in thousands)	Statement of Operations Classification	2020		2020 2	
Lease cost:					
Operating lease cost	Cost of sales and merchandising revenues	\$	21,127	\$	26,230
Operating lease cost	Operating, administrative and general expenses		10,990		13,711
Finance lease cost					
Amortization of right-of-use assets	Cost of sales and merchandising revenues		1,451		357
Amortization of right-of-use assets	Operating, administrative and general expenses		1,008		1,119
Interest expense on lease liabilities	Interest expense		1,289		1,023
Other lease cost (a)	Cost of sales and merchandising revenues		663		822
Other lease cost (a)	Operating, administrative and general expenses		260		322
Total lease cost		\$	36,788	\$	43,584

⁽a) Other lease cost includes short-term lease costs and variable lease costs.

The Company often has the option to renew lease terms for buildings and other assets. The exercise of a lease renewal option is generally at the sole discretion of the Company. In addition, certain lease agreements may be terminated prior to their original expiration date at the discretion of the Company. Each renewal and termination option is evaluated at the lease commencement date to determine if the Company is reasonably certain to exercise the option on the basis of economic factors. The following table summarizes the weighted average remaining lease terms.

	As of Decem	ber 31,
Weighted Average Remaining Lease Term	2020	2019
Operating leases	4.6 years	4.1 years
Finance leases	7.4 years	6.5 years

The discount rate implicit within our leases is generally not determinable and therefore the Company determines the discount rate based on its incremental borrowing rate. The incremental borrowing rate for each lease is determined based on its term and the currency in which lease payments are made, adjusted for the impacts of collateral. The following table summarizes the weighted average discount rate used to measure the Company's lease liabilities.

	As of Dece	mber 31,
Weighted Average Discount Rate	2020	2019
Operating leases	3.96 %	3.88 %
Finance leases	3.42 %	3.72 %

Supplemental Cash Flow Information Related to Leases

	Year ended December 31,			er 31,
(in thousands)		2020		2019
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows from operating leases	\$	28,444	\$	25,304
Operating cash flows from finance leases		1,289		1,023
Financing cash flows from finance leases		4,115		1,973
Right-of-use assets obtained in exchange for lease obligations:				
Operating leases		15,160		29,427
Finance leases		4,672		16,998

Maturity Analysis of Leases Liabilities

	December 31, 2020					
(in thousands)	Operating Leases		Finance Leases			Total
2021	\$	21,262	\$	3,995	\$	25,257
2022		14,698		4,002		18,700
2023		10,389		4,003		14,392
2024		5,552		3,875		9,427
2025		2,233		2,931		5,164
Thereafter		7,067		26,547		33,614
Total lease payments		61,201		45,353		106,554
Less: interest		4,449		6,045		10,494
Total	\$	56,752	\$	39,308	\$	96,060

	 December 31, 2019			
(in thousands)	 Operating Leases	Finance Leases	Total	
2020	\$ 28,145	\$ 18,185	\$ 46,330	
2021	19,230	2,334	21,564	
2022	13,574	2,341	15,915	
2023	9,887	2,342	12,229	
2024	5,567	2,176	7,743	
Thereafter	6,956	16,154	23,110	
Total lease payments	83,359	43,532	126,891	
Less: interest	6,568	4,395	10,963	
Total	\$ 76,791	\$ 39,137	\$ 115,928	

Future Minimum Lease Payments Receivable (for leases in effect as of December 31, 2020)

(in thousands)	Oper	ating Leases	Sales-type Financi	e and Direct ng Leases
2021	\$	68,261	\$	1,378
2022		44,530		1,378
2023		26,536		365
2024		17,480		
2025		11,902		_
Thereafter		19,573		
Total	\$	188,282	\$	3,121

14. Commitments and Contingencies

Litigation activities

The Company is party to litigation, or threats thereof, both as defendant and plaintiff with some regularity, although individual cases that are material in size occur infrequently. As a defendant, the Company establishes reserves for claimed amounts that are considered probable and capable of estimation. If those cases are resolved for lesser amounts, the excess reserves are taken into income and, conversely, if those cases are resolved for larger than the amount the Company has accrued, the Company records additional expense. The Company believes it is unlikely that the results of its current legal proceedings for which it is the defendant, even if unfavorable, will be material. As a plaintiff, amounts that are collected can also result in sudden, non-recurring income.

Litigation results depend upon a variety of factors, including the availability of evidence, the credibility of witnesses, the performance of counsel, the state of the law, and the impressions of judges and jurors, any of which can be critical in importance, yet difficult, if not impossible, to predict. Consequently, cases currently pending, or future matters, may result in unexpected, and non-recurring losses, or income, from time to time. Finally, litigation results are often subject to judicial reconsideration, appeal and further negotiation by the parties, and as a result, the final impact of a particular judicial decision may be unknown for some time or may result in continued reserves to account for the potential of such post-verdict actions.

Specifically, the Company is party to a non-regulatory litigation claim, which is in response to penalties and fines paid to regulatory entities by a previously unconsolidated subsidiary in 2018 for the settlement of matters which focused on certain trading activity. While the Company believes it has meritorious defenses against the suit, the ultimate resolution of the matter could result in a loss in excess of the amount accrued. Given the preliminary status of the claim, the Company does not believe the excess, net of the acquisition-related indemnity, is determinable.

The estimated losses for all other outstanding claims that are considered reasonably possible are not material.

$\underline{\textit{Commitments}}$

As of December 31, 2020, the Company carries \$1.0 million in industrial revenue bonds with the City of Colwich, Kansas (the "City") that mature in 2029, and leases back facilities owned by the City that the Company recorded as property, plant, and equipment, net, on its Consolidated Balance Sheets under a capital lease. The lease payment on the facilities is sufficient to pay principal and interest on the bonds. Because the Company owns all of the outstanding bonds, has a legal right to set-off, and intends to set-off the corresponding lease and interest payment, the Company netted the capital lease obligation with the bond asset and, in turn, reflected no amount for the obligation or the corresponding asset on its Consolidated Balance Sheets at December 31, 2020.

15. Stock Compensation Plans

The Company's 2019 Long-Term Incentive Compensation Plan, dated February 22, 2019 and subsequently approved by Shareholders on May 10, 2019, is authorized to issue up to 2.3 million shares of common stock as options, share appreciation rights, restricted shares and units, performance shares and units and other stock or cash-based awards. Approximately 1.0 million shares remain available for issuance at December 31, 2020.

Stock-based compensation expense for all stock-based compensation awards are based on the grant-date fair value. The Company recognizes these compensation costs on a straight-line basis over the requisite service period of the award. Forfeitures are estimated at the date of grant based on historical experience. Total compensation expense recognized in the Consolidated Statements of Operations for all stock compensation programs was \$10.2 million, \$16.2 million, and \$6.6 million in 2020, 2019 and 2018, respectively. Of the expense recognized, approximately \$4.3 million and \$9.4 million were related to awards granted as part of the Lansing Acquisition 2018 Inducement and Retention Award Plan for the years ended December 31, 2020 and 2019, respectively.

Non-Qualified Stock Options ("Options")

In 2015, the Company granted 325 thousand non-qualified stock options upon hiring of a senior executive. The fair value of the options was estimated at the date of grant under the Black-Scholes option pricing model. The options have a term of seven years with a weighted average exercise price of \$35.40 and have since fully vested. All non-qualified stock options remain outstanding as of December 31, 2020.

Restricted Stock Awards ("RSAs")

These awards carry voting and dividend equivalent rights upon vesting; however, sale of the shares is restricted prior to vesting. RSAs graded vest over a period of 3 years. Total restricted stock expense is equal to the market value of the Company's common shares on the date of the award and is recognized over the service period on a straight-line basis.

A summary of the status of the Company's non-vested RSAs as of December 31, 2020, and changes during the period then ended, is presented below:

	Shares (in thous		ed-Aver ite Fair	age Grant- Value	
Non-vested at January 1, 2020		707	\$		34.99
Granted		284			18.35
Vested		(413)			32.68
Forfeited		(11)			25.94
Non-vested at December 31, 2020		567	\$		28.50
	Year ended December 31,				
	2020	2()19		2018
Total fair value of shares vested (in thousands)	\$ 13,510	\$	8,225	\$	4,681
Weighted average fair value of RSAs granted	\$ 18.35	\$	33.87	\$	34.36

As of December 31, 2020, there was \$3.5 million of total unrecognized compensation cost related to non-vested RSAs that is expected to be recognized over a weighted-average period of 1.3 years.

Earnings Per Share-Based Performance Share Units ("EPS PSUs")

Each EPS PSU gives the participant the right to receive common shares dependent on the achievement of specified performance results over a 3-year performance period. At the end of the performance period, the number of shares of stock issued will be determined by adjusting the award upward or downward from a target award. Fair value of EPS PSUs issued is based on the market value of the Company's common shares on the date of the award. The related compensation expense is recognized over the performance period when achievement of the award is probable and is adjusted for changes in the number of shares expected to be issued if changes in performance are expected. Currently, the Company is accounting for the awards granted in 2020, 2019 and 2018 at 10%, 0% and 0% of the maximum amount available for issuance, respectively.

EPS PSUs Activity

A summary of the status of the Company's EPS PSUs as of December 31, 2020, and changes during the period then ended, is presented below:

	Shares (in thou	ısands)		ed-Avera ate Fair V	ge Grant- 'alue
Non-vested at January 1, 2020		263	\$		32.58
Granted		203			19.06
Vested		_			_
Forfeited		(122)			32.71
Non-vested at December 31, 2020		344	\$		24.58
		Year ended	December 3	31,	
	2020	20	019		2018
Weighted average fair value of EPS PSUs granted	\$ 19.06	\$	27.23	\$	35.36

As of December 31, 2020, there was \$0.2 million unrecognized compensation cost related to non-vested EPS PSUs that is expected to be recognized over a weighted-average period of 1.4 years.

Total Shareholder Return-Based Performance Share Units ("TSR PSUs")

Each TSR PSU gives the participant the right to receive common shares dependent on total shareholder return over a 3-year period. At the end of the period, the number of shares of stock issued will be determined by adjusting the award upward or downward from a target award. Fair value of TSR PSUs was estimated at the date of grant using a Monte Carlo Simulation with the following assumptions: Expected volatility was estimated based on the historical volatility of the Company's common shares over the 2.83 year period prior to the grant date. The average expected life was based on the contractual term of the plan. The risk-free rate is based on the U.S. Treasury Strips available with maturity period consistent with the expected life.

	2020
Risk free interest rate	0.85%
Dividend yield	<u>%</u>
Volatility factor of the expected market price of the common shares	33%
Expected term (in years)	2.83
Correlation coefficient	0.43

TSR PSUs Activity

A summary of the status of the Company's TSR PSUs as of December 31, 2020, and changes during the period then ended, is presented below:

	Shares (in thous	Weight Da	ed-Avera ate Fair V	ge Grant- alue	
Non-vested at January 1, 2020		263	\$		46.85
Granted		203			16.80
Vested		_			_
Forfeited		(122)			39.32
Non-vested at December 31, 2020		344	\$		31.83
	Year ended December 31,				
	2020	20	19	2	2018
Weighted average fair value of TSR PSUs granted	\$ 16.80	\$	49.20	\$	46.51

As of December 31, 2020, there was approximately \$1.8 million unrecognized compensation cost related to non-vested TSR PSUs that is expected to be recognized over a weighted-average period of 1.5 years.

The Company's 2019 ESP Plan is authorized to issue up to 230 thousand common shares. The ESP Plan allows employees to purchase common shares through payroll withholdings. The Company has approximately 173 thousand common shares remaining available for issuance to and purchase by employees under this plan. The ESP Plan also contains an option component. The purchase price per share under the ESP Plan is the lower of the market price at the beginning or end of the year. The Company records a liability for withholdings not yet applied towards the purchase of common stock. This liability is included in Accrued expenses and other current liabilities on the Consolidated Balance Sheets.

The fair value of the option component of the ESP Plan is estimated at the date of grant under the Black-Scholes option pricing model with the following assumptions at the grant date. Expected volatility was estimated based on the historical volatility of the Company's common shares over the past year. The average expected life was based on the contractual term of the plan. The risk-free rate is based on the U.S. Treasury yield curve rate with a one year term. Forfeitures are estimated at the date of grant based on historical experience.

	Year ended December 31,				
	2020	2019	2018		
Risk free interest rate	1.59 %	1.59 %	2.57 %		
Dividend yield	2.71 %	2.27 %	2.23 %		
Volatility factor of the expected market price of the common shares	36 %	36 %	33 %		
Expected life for the options (in years)	1.0	1.0	1.0		

16. Business Acquisitions

On October 1, 2019, The Andersons entered into an agreement with Marathon to merge TAAE, TACE, TAME and the Company's wholly-owned subsidiary, The Andersons Denison Ethanol LLC into a new legal entity, The Andersons Marathon Holdings LLC. As a result of the merger, The Andersons and Marathon now own 50.1% and 49.9% of the equity in TAMH, respectively. Total consideration transferred by the Company to complete the acquisition of TAMH was \$182.9 million. The Company transferred non-cash consideration of \$7.3 million and its equity values of the previously mentioned LLCs.

The purchase price allocation was finalized in the second quarter of 2020. A summary of the consideration given is as follows:

(in thousands)	
Non-cash consideration	\$ 7,318
Investments contributed at fair value	124,662
Investment contributed at cost	 50,875
Total purchase price consideration	\$ 182,855

The final purchase price allocation at October 1, 2019, is as follows:

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(in thousands)	
Cash and cash equivalents	\$ 47,042
Accounts receivable	12,175
Inventories	31,765
Other current assets	2,638
Goodwill	3,075
Right of use asset	5,200
Other assets, net	861
Property, plant and equipment, net	321,380
	424,136
Trade and other payables	13,461
Accrued expense and other current liabilities	3,011
Other long-term liabilities	292
Long-term lease liabilities	2,230
Long-term debt, including current maturities	 47,886
	66,880
Noncontrolling Interest	 174,401
Net Assets Acquired	\$ 182,855
Removal of preexisting ownership interest	\$ (88,426)
Pre-tax gain on derecognition of preexisting ownership interest	\$ 36,286

Asset and liability account balances in the opening balance sheet above include the previously consolidated TADE investment balances at carryover basis.

The \$3.1 million of goodwill recognized is primarily attributable to expected synergies and the assembled workforce of TAMH. None of the goodwill is deductible for income tax purposes. Due to finalization of the purchase price accounting as well as adjustments to deferred income taxes during the second quarter, goodwill increased \$0.4 million, other long-term liabilities increased \$0.1 million and noncontrolling interest increased \$0.3 million.

The fair value in the opening balance sheet of the 49.9% noncontrolling interest in TAMH was finalized at \$174.4 million. The fair value was estimated based on 49.9% of the total equity value of TAMH based on the transaction price for the 50.1% stake in TAMH, considering the consideration transferred noted above.

Pro Forma Financial Information (Unaudited)

The summary pro forma financial information for the periods presented below gives effect to the TAMH acquisition as if it had occurred at January 1, 2019.

	Year ended	December 31,
(in thousands)	2020	2019
Net sales	\$ 8,208,436	\$ 8,377,863
Net loss	(14,215)	(24,475)

Pro forma net income was also adjusted to account for the tax effects of the pro forma adjustments noted above using a statutory tax rate of 25%. The pro forma amounts for net income above have been adjusted to reflect additional depreciation and amortization that would have been charged assuming the fair value adjustments to Property, plant and equipment had been applied on January 1, 2019 related to the TAMH merger.

Pro forma financial information is not necessarily indicative of the Company's actual results of operations if the acquisition had been completed at the date indicated, nor is it necessarily an indication of future operating results. Amounts do not include any operating efficiencies or cost savings that the Company believes are achievable.

17. Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill by reportable segment for the years ended December 31, 2020, 2019 and 2018 are as follows:

	Trade	Ethanol	Rail	Plant Nutrient	Total
(in thousands)	Traue	Ethanoi	Nan	Nutrient	1 Otal
Balance at January 1, 2018	\$ 1,171	\$ —	\$ 4,167	\$ 686	\$ 6,024
Acquisitions	_	_	_	_	_
Impairments					
Balance at December 31, 2018	1,171		4,167	686	6,024
Acquisitions	126,610	2,726	_	_	129,336
Impairments					
Balance at December 31, 2019	127,781	2,726	4,167	686	135,360
Reorganization (a)	(5,714)	5,714	_	_	_
Acquisitions (b)	_	349	_	_	349
Impairments				_	_
Balance at December 31, 2020	\$ 122,067	\$ 8,789	\$ 4,167	\$ 686	\$ 135,709

- (a) Reorganization related to move of the DDG business line from the Trade to Ethanol segment.
- (b) Acquisitions represent the TAMH acquisitions finalized goodwill allocation.

Goodwill for the Trade segment is \$122.1 million, net of accumulated impairment losses of \$46.4 million as of December 31, 2020. Goodwill for the Plant Nutrient segment is \$0.7 million, net of accumulated impairment losses of \$68.9 million as of December 31, 2020.

The Company had goodwill of approximately \$135.7 million at December 31, 2020, which includes approximately \$80.8 million related to the Company's Grain Storage and Merchandising (GSM) reporting unit, approximately \$41.3 million related to the Company's Food and Specialty Ingredients (FSI) reporting unit, approximately \$8.8 million related to the Company's Ethanol reporting unit. The remaining goodwill balances are split between the Rail Repair and Lawn reporting units of approximately \$4.2 million and \$0.7 million, respectively.

Goodwill is tested for impairment annually as of October 1, or more frequently if impairment indicators arise. The Company uses a one-step quantitative approach that compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV was computed based on both an income approach (discounted cash flows) and a market approach. The income approach uses a reporting unit's estimated future cash flows, discounted at the weighted average cost of capital ("WACC") of a hypothetical third-party buyer. The WACC is the rate used to discount each reporting unit's estimated future cash flows. The WACC is calculated based on the proportionate weighting of the cost of debt and equity. The cost of equity is based on a risk-free interest rate and an equity risk factor, which is derived from public companies similar to the reporting units and which captures the perceived risks and uncertainties associated with the reporting unit's cash flows. The cost of debt is the rate that a prudent investor would require to lend money to the reporting units on an after tax basis and is estimated based on a market-derived analysis of corporate bond yields. The cost of debt and equity is weighted based on the debt to market capitalization ratio of publicly traded companies with similarities to the reporting units being tested. The WACC applied in each reporting unit's last quantitative test ranged from 8.75% to 10.75% which includes a company specific risk premium range from 2.0% to 4.0%. Differences in the WACC used between reporting units is primarily due to distinct risks and uncertainties regarding the cash flows of the different reporting units.

The market approach estimates fair value by applying cash flow multiples to the reporting unit's operating performance. The multiples are derived from comparable publicly traded companies with similar operating and investment characteristics to the reporting unit. Any excess of the carrying value of the goodwill over the BEV will be recorded as an impairment loss. The calculation of the BEV is based on significant unobservable inputs, such as price trends, customer demand, material costs and discount rates, and are classified as Level 3 in the fair value hierarchy.

There can be no assurance that anticipated financial results will be achieved and the goodwill balances remain susceptible to future impairment charges. The goodwill related to the Ethanol, GSM and FSI reporting units are determined to have the greatest risk of future impairment charges given the difference (approximately 6%, 9% and 14%, respectively) between the BEV and carrying value of these reporting units as of the Company's annual impairment test date. The BEVs of the Company's other reporting units more substantially exceed their carrying values. If the Company's projected future cash flows were lower, or if the assumed weighted average cost of capital were higher, the testing performed at year-end may have indicated an impairment of the goodwill related to one or more of the Company's reporting units. Any impairment charges that the Company may take in the future could be material to its consolidated results of operations and financial condition.

No goodwill impairment charges were incurred in the years ended December 31, 2020, 2019 or 2018 as a result of our annual impairment testing.

The Company's other intangible assets are as follows:

(in thousands)		eful L 1 year		Or	iginal Cost	ccumulated nortization]	Net Book Value
December 31, 2020								
Intangible asset class								
Customer list	3	to	10	\$	131,432	\$ 45,946	\$	85,486
Non-compete agreements	1	to	7		21,346	15,711		5,635
Supply agreement	10	to	10		9,060	6,988		2,072
Technology	10	to	10		13,400	7,538		5,862
Trademarks and patents	7	to	10		15,810	10,764		5,046
Lease intangible	1	to	8		8,195	5,368		2,827
Software	2	to	10		89,038	53,626		35,412
Other	3	to	5		1,009	409		600
				\$	289,290	\$ 146,350	\$	142,940
December 31, 2019								
Intangible asset class								
Customer list	3	to	10	\$	131,832	\$ 33,971	\$	97,861
Non-compete agreement	1	to	7		23,813	12,446		11,367
Supply agreement	10	to	10		9,060	6,526		2,534
Technology	10	to	10		13,400	6,197		7,203
Trademarks and patents	7	to	10		15,810	9,491		6,319
Lease intangible	1	to	8		9,744	4,600		5,144
Software	2	to	10		90,836	46,010		44,826
Other	3	to	5		445	387		58
				\$	294,940	\$ 119,628	\$	175,312

Amortization expense for intangible assets was \$32.2 million, \$35.4 million and \$19.1 million for 2020, 2019 and 2018, respectively. Expected future annual amortization expense for the above assets is as follows: 2021 -- \$30.8 million; 2022 -- \$23.5 million; 2023 -- \$22.3 million; 2024 -- \$19.0 million; and 2025 -- \$12.6 million.

In December 2019, the Company recorded impairment charges of \$2.5 million for intangibles in the Trade segment related to a frac sand non-compete agreement. The Company also recorded a \$2.2 million impairment charge for brand related intangibles within the Plant Nutrient segment in the fourth quarter.

18. Sale of Assets

During 2020, the Company sold part of its grain assets in Geneva, New York plus working capital during the third quarter for \$11.6 million resulting in a pre-tax gain of \$1.4 million recorded in Other income, net.

During 2019, the Company sold the agronomy assets of ANDE Canada (formerly Thompsons Limited), a wholly owned subsidiary, in Ontario, Canada for \$25.1 million resulting in a pre-tax gain of \$5.7 million recorded in Other income, net. The Company sold its farm center assets in Bay City, Michigan for \$4.6 million resulting in a pre-tax gain of \$2.9 million recorded in Other income, net. The Company sold its assets in Union City, Tennessee for \$0.6 million resulting in a pre-tax loss of \$0.6 million in Other income, net.

During 2018, the Company sold its grain elevators in Humboldt, Kenton and Dyer, Tennessee for \$19.5 million plus working capital during the second quarter of 2018 and its Como location for \$1.3 million plus working capital during the third quarter of 2018. The Company sold one of its convertible preferred security investments for \$6.4 million and recorded a pre-tax gain of \$3.9 million in Other income, net. The Company sold fifty barge vessels for \$26.9 million and recorded a pre-tax gain of \$2.4 million in Other income, net. The Company sold its final retail property for \$4.9 million and recorded a nominal gain.

19. Subsequent Events

On January 21, 2021, The Andersons, Inc. entered into a credit agreement that includes a short term \$250 million term note for working capital needs in which the entire stated principal is due on December 31, 2021. Borrowings under the credit agreement bear interest at variable interest rates, which are based on LIBOR plus an applicable spread.

On February 4, 2021, The Andersons, Inc. completed the second amendment to its credit agreement dated January 11, 2019. The amendment, which replaces an underwritten bridge loan received on January 21, 2021, provides for a short term \$250 million term note in which the entire stated principal is due on December 31, 2021. The term note will bear interest at variable interest rates, which are based on LIBOR plus an applicable spread.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures as required by Exchange Act Rule 13a-15(b) as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these disclosure controls and procedures are effective.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of management, including the certifying officers, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting based on the criteria established in the *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon the evaluation under this framework, management concluded that our internal control over financial reporting was effective as of December 31, 2020.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2020 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is included below.

Changes in Internal Control over Financial Reporting

There have been no changes in the Company's internal controls over financial reporting during the Company's most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal controls over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of The Andersons, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of The Andersons, Inc. and subsidiaries (the "Company") as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2020, of the Company and our report dated February 25, 2021, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Cleveland, Ohio February 25, 2021

Item 9B. Other Information

None.

Part III.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item is set forth under the headings "Corporate Governance," "Directors," "Executive Officers" and "Other Information-Security Ownership of Certain Beneficial Owners and Management" in the Company's 2021 Proxy Statement to be filed with the SEC within 120 days after December 31, 2020 in connection with the solicitation of proxies for the Company's 2021 annual meeting of shareholders, and is incorporated herein by reference.

Item 11. Executive Compensation

The information set forth under the caption "Executive Compensation" in the Proxy Statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information set forth under the caption "Share Ownership" and "Executive Compensation - Equity Compensation Plan Information" in the Proxy Statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information set forth under the caption "Review, Approval or Ratification of Transactions with Related Persons" in the Proxy Statement is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information set forth under "Appointment of Independent Registered Public Accounting Firm" in the Proxy Statement is incorporated herein by reference.

Part IV.

Item 15. Exhibits and Financial Statement Schedules

(a) Documents filed as a part of this report

1. Financial Statements

The Consolidated Financial Statements of the Company are set forth under Item 8 of this report on Form 10-K.

2. Financial Statement Schedules

Financial Statement Schedule II - Valuation and Qualifying Accounts included in this Form 10-K. All other schedules are not required under the related instructions or are not applicable.

(b) Exhibit Listing

Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date/ Period End Date
3.1	Articles of Incorporation.	10-K	3.1	December 31, 2019
3.2	Code of Regulations of The Andersons, Inc.	S-4/A	Annex B	May 19, 1995
4.1	Specimen Common Share Certificate. (Incorporated by reference to Exhibit 4.1 to Registration Statement No. 033-58963).	S-4/A	4.1	May 19, 1995
4.2	Form of Indenture dated June 28, 2012, between The Andersons, Inc. and Huntington National Bank, as Trustee (Incorporated by reference to Exhibit 4.1 in Registration Statement No. 333-182428).	S-3	4.1	June 29, 2012
10.01	Cargill Lease and Sublease dated June 1, 2008.	10-K	10.11	December 31, 2018
10.02	First Amendment to Lease and Sublease between Cargill, Incorporated and The Andersons, Inc.	10-K	10.58	December 31, 2013
10.03	Second Amendment to Lease and Sublease between Cargill, Incorporated and The Andersons, Inc.	8-K	10.2	June 28, 2018
10.04	Marketing Agreement between The Andersons, Inc. and Cargill, Incorporated	8-K	10.1	June 28, 2018
10.05*	2004 Employee Share Purchase Plan Restated and Amended January 2019	DEF 14A	Appendix B	March 19, 2019
10.06	The Andersons, Inc. 2014 Long-Term Incentive Compensation Plan effective May 2, 2014.	DEF 14A	Appendix C	March 12, 2014
10.07*	The Andersons, Inc. 2019 Long-Term Incentive Compensation Plan	DEF 14A	Appendix C	March 19, 2019
10.08*	Employment Agreement between The Andersons, Inc. and Patrick E. Bowe	10-Q	10	September 30, 2015
10.09*	Management Performance Program	10-K	10.33	December 31, 2017
10.10	Form of Change in Control and Severance Participation Agreement	10-K	10.34	December 31, 2017
10.11	Change in Control and Severance Policy	10-K	10.35	December 31, 2017
10.12*	The Andersons, Inc. Lansing Acquisition 2018 Inducement and Retention Plan dated December 21, 2018	S-8	4	December 21, 2018

Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date/ Period End Date
10.13*	Inducement and Retention Restricted Stock Award Agreement	S-8	10.1	December 21, 2018
10.14*	Employment Agreement between The Andersons, Inc. and William E. Krueger	8-K	10	January 2, 2019
10.15	Credit Agreement, dated January 11, 2019, between The Andersons, Inc., as borrower, and several banks with U.S. Bank National Association acting as Lead Agent.	8-K	10.1	January 14, 2019
10.16*	Form of Performance Share Unit Agreement - Total Shareholder Return	10-Q	10.3	March 31, 2019
10.17*	Form of Restricted Share Award	10-Q	10.4	March 31, 2019
10.18*	Form of Performance Share Unit Agreement - Earnings Per Share	10-Q	10.1	June 30, 2019
10.19*	Form of Restricted Share Award - Non-Employee Directors Agreement	10-Q	10.2	June 30, 2019
10.20	CREDIT AGREEMENT by and among THE ANDERSONS MARATHON HOLDINGS LLC, as Borrower, THE GUARANTORS PARTY HERETO, THE LENDERS PARTY HERETO and COBANK, ACB, as Administrative Agent COBANK, ACB and FARM CREDIT MID-AMERICA, PCA, as Joint Lead Arrangers and Bookrunners dated October 1, 2019.	8-K	10.2	October 3, 2019
10.21	LOAN AGREEMENT between METLIFE REAL ESTATE LENDING LLC, a Delaware limited liability company, as Lender and THE ANDERSONS, INC., an Ohio corporation, as Borrower, FIRST MORTGAGE LOAN in the amount of \$105,000,000.00 dated as of November 14, 2019. (Schedules within the Loan Agreement have been omitted and can be furnished to the SEC upon request.)	8-K	10.1	November 18, 2019
10.22	First Amendment to Credit Agreement between THE ANDERSONS MARATHON HOLDINGS LLC and COBANK, ACB.	8-K	10.1	December 17, 2019
10.23	First Amendment to Loan Agreement	10-Q	10.1	June 30, 2020
10.24	Second Amendment to Credit Agreement	10-Q	10.2	June 30, 2020
10.25	Amendment No. 1 to Credit Agreement	10-Q	10.1	September 30, 2020
10.26	Amendment No. 2 to Credit Agreement	8-K	10.1	February 5, 2021
21.1**	Consolidated Subsidiaries of The Andersons, Inc.			
23.1**	Consent of Independent Registered Public Accounting Firm - Deloitte & Touche LLP.			
23.2**	Consent of Independent Registered Public Accounting Firm - KPMG LLP.			
23.3**	Consent of Independent Registered Public Accounting Firm - PricewaterhouseCoopers LLP - Canada.			
31.1**	Certification of the Chief Executive Officer under Rule 13(a)-14(a)/15d-14(a).			

Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date/ Period End Date
31.2**	Certification of the Chief Financial Officer under Rule 13(a)-14(a)/15d-14(a).			
32.1***	Certifications Pursuant to 18 U.S.C. Section 1350.			
95**	Mine Safety Disclosure			
101**	Inline XBRL Document Set for the consolidated financial statements and accompanying notes in Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.			
104**	Inline XBRL for the cover page of this Annual Report on Form 10-K, included in the Exhibit 101 Inline XBRL Document Set.			

^{*} Indicates management contract or compensatory plan or arrangement.

^{**} Filed herewith.

^{***} Furnished herewith.

Item 16. Form 10-K Summary

Not applicable

THE ANDERSONS, INC. SCHEDULE II - CONSOLIDATED VALUATION AND QUALIFYING ACCOUNTS

	Additions							
Description (in thousands)	alance at ginning of period	co	narged to osts and xpenses		Charged to other accounts	De	eductions (1)	alance at of period
Allowance for doubtful accounts receivable							_	
2020	\$ 12,781	\$	7,042	\$	_	\$	(4,349)	\$ 15,474
2019	8,325		4,678		_		(222)	12,781
2018	9,156		542		_		(1,373)	8,325

⁽¹⁾ Uncollectible accounts written off, net of recoveries and adjustments to estimates for the allowance for doubtful accounts receivable accounts.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THE ANDERSONS, INC. (Registrant)

Date: February 25, 2021 /s/ Patrick E. Bowe

Patrick E. Bowe Chief Executive Officer (Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>	<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ Patrick E. Bowe	Chief Executive Officer	2/25/2021	/s/ Catherine M. Kilbane	Director	2/25/2021
Patrick E. Bowe	(Principal Executive Officer)		Catherine M. Kilbane		
/s/ Brian A. Valentine	Executive Vice President and Chief Financial Officer	2/25/2021	/s/ Ross W. Manire	Director	2/25/2021
Brian A. Valentine	(Principal Financial Officer)		Ross W. Manire		
/s/ Michael T. Hoelter	Corporate Controller	2/25/2021	/s/ Patrick S. Mullin	Director	2/25/2021
Michael T. Hoelter	(Principal Accounting Officer)		Patrick S. Mullin		
/s/ Michael J. Anderson, Sr.	Chairman	2/25/2021	/s/ John T. Stout, Jr.	Director	2/25/2021
Michael J. Anderson, Sr.			John T. Stout, Jr.		
/s/ Gerard M. Anderson	Director	2/25/2021	/s/ Pamela S. Hershberger	Director	2/25/2021
Gerard M. Anderson	•		Pamela S. Hershberger		
/s/ Stephen F. Dowdle	Director	2/25/2021	/s/ Robert J. King, Jr.	Director	2/25/2021
Stephen F. Dowdle	•		Robert J. King, Jr.		

CONSOLIDATED SUBSIDIARIES OF THE ANDERSONS, INC.

Subsidiary	Place of Organization
1070283 B.C. LTD	Canada
Cap Acquire Mexico S.de R.L. de C.V.	Mexico
Cap Acquire, LLC	Delaware
ELEMENT, LLC	Kansas
Feed Factors Limited	United Kingdom
Kay Flo Industries, Inc.	Iowa
Lansing Brasil Comercial & Exportadora de Produtos Agricolas Ltda.	Brazil
Lansing Brasil Holdings, LLC	Delaware
Lansing Canada Holdings, LLC	Delaware
Lansing Canada ULC	Canada
Lansing de Mexico S.de R.L. de C.V.	Mexico
Lansing de Mexico Servicios S. de R.L. de C.V.	Mexico
Lansing Ethanol Services, LLC	Delaware
Lansing Louisiana, LLC	Delaware
Lansing Proprietary UK, Limited	United Kingdom
Lansing Proprietary, LLC	Delaware
Lansing Trade Group - Asia PTE LTD	Singapore
Lansing Trade Group – Germany GmbH	Germany
Lansing Trade Group Canada ULC	Canada
Lansing Trade Group, LLC	Delaware
Lansing Trading Company, Ltd.	China
Lawnbox LLC	Ohio
Liqui Fert Corporation	Puerto Rico
Maumee Ventures LLC	Ohio
Metamora Commodity Company, Inc.	Ohio
Mineral Processing Company	Ohio
NARCAT Mexico S.de R.L. de C.V.	Mexico
New Eezy-Gro Inc.	Ohio
NuRail Canada ULC	Canada
Nutra-Flo Company	Iowa
Plant Nutrient Operations LLC	Ohio
Purity Foods, Inc.	Michigan
TAI Hold Co, LLC	Michigan
The Andersons AgVantage Agency LLC	Ohio
The Andersons Ethanol LLC	Ohio
The Andersons Executive Services LLC	Ohio
The Andersons Farm Development Co., LLC	Ohio
The Andersons LTD.	Canada
The Andersons Marathon Holdings LLC	Ohio
The Andersons Plant Nutrient LLC	Ohio
The Andersons Rail Management Company LLC	Ohio
The Andersons Railcar Company LLC	Ohio

Subsidiary	Place of Organization
The Andersons Railcar Leasing Company LLC	Ohio
The Andersons Winona Terminal, LLC	Minnesota
The Andersons, Inc. Charitable Foundation	Ohio
The Andersons Canada Limited	Canada
Thompsons USA Limited	Delaware
Titan Lansing, LLC	Delaware
Top Cat Holding Co	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in:

- Registration Statement No. 333-233862 on Form S-8 dated September 20, 2019 pertaining to the registration of 2,530,000 shares under The Andersons, Inc. 2019 Long-Term Incentive Compensation Plan 2004 Employee Share Purchase Plan Restated and Amended January 2019;
- Registration Statement No. 333-228957 on Form S-8 dated December 21, 2018 pertaining to the registration of 650,000 shares under the Lansing Acquisition 2018 Inducement and Retention Plan;
- Registration Statement No. 333-202442 on Form S-8 dated March 2, 2015 pertaining to the registration of 1,750,000 shares under the Company's 2014 Long-Term Incentive Compensation Plan;
- Registration Statement No. 333-182428 on Form S-3 dated June 29, 2012 pertaining to the shelf registration of \$8,000,000 2.65% Five-Year Debentures, \$6,000,000 3.50% Ten-Year Debentures and \$6,000,000 4.50% Fifteen-Year Debentures; and

of our reports dated February 25, 2021, relating to the financial statements of The Andersons, Inc. and the effectiveness of The Andersons, Inc. internal control over financial reporting, appearing in this Annual Report on Form 10-K of The Andersons, Inc. for the year ended December 31, 2020.

/s/ Deloitte & Touche LLP

Cleveland, Ohio February 25, 2021

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the registration statements (Nos. 333-233862, 333-202442, and 333-228957) on Form S-8 and registration statement (No. 333-182428) on Form S-3 of The Andersons, Inc. of our report dated February 27, 2019, with respect to the consolidated balance sheet of Lansing Trade Group, LLC as of December 31, 2018, the related consolidated statements of comprehensive income, equity, and cash flows for the year then ended, and the related notes, not included herein, which report appears in the December 31, 2020 annual report on Form 10-K of The Andersons, Inc.

/s/ KPMG LLP

Kansas City, Missouri February 25, 2021

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-202442, 333-228957 and 333-233862) and Registration Statements on Form S-3 (Nos. 333-182428) of The Andersons, Inc. of our report dated February 21, 2019 relating to the consolidated financial statements of Lux JV Treasury Holding Company, S.à r.l., which appears in this Form 10-K of The Andersons, Inc.

/s/ PricewaterhouseCoopers LLP Waterloo, Ontario, Canada February 25, 2021

Certification of President and Chief Executive Officer Under Rule 13(a)-14(a)/15d-14(a)

I, Patrick E. Bowe, certify that:

- 1 I have reviewed this report on Form 10-K of The Andersons, Inc.
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 25, 2021

/s/ Patrick E. Bowe

Patrick E. Bowe Chief Executive Officer (Principal Executive Officer)

Certification of Chief Financial Officer under Rule 13(a)-14(a)/15d-14(a)

I, Brian A. Valentine, certify that:

- 1 I have reviewed this report on Form 10-K of The Andersons, Inc.
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 25, 2021

/s/ Brian A. Valentine

Brian A. Valentine

Executive Vice President and Chief Financial Officer (Principal Financial Officer)

The Andersons, Inc.

Certifications Pursuant to 18 U.S.C. Section 1350

In connection with the Annual Report of The Andersons, Inc. (the "Company") on Form 10-K for the year ended December 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to such officer's knowledge:

- (1) The Report fully complies with the requirements of 13(a) or 15(d) of the Securities Exchange Act of 1934, and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

February 25, 2021

/s/ Patrick E. Bowe

Patrick E. Bowe Chief Executive Officer (Principal Executive Officer)

/s/ Brian A. Valentine

Brian A. Valentine

Executive Vice President and Chief Financial Officer (Principal Financial Officer)

A signed original of this written statement required by Section 906 has been provided to The Andersons, Inc. and will be retained by The Andersons, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Mine Safety Disclosure

Our mining operation(s) are subject to regulation by the Federal Mine Safety and Health Administration ("MSHA") under the Federal Mine Safety and Health Act of 1977 (the "Mine Act"). We have disclosed below information regarding certain citations and orders issued by MSHA and related assessments and legal actions with respect to these mining operation(s). In evaluating the below information regarding mine safety and health, investors should take into account factors such as: (i) the number of citations and orders will vary depending on the size of a mine; (ii) the number of citations issued will vary from inspector to inspector and mine to mine; and (iii) citations and orders can be contested and appealed, and in that process, are often reduced in severity and amount, and are sometimes dismissed or vacated. The tables below include information regarding issued citations and/or orders which may or may not become final orders. The tables below do not include any orders or citations issued to independent contractors at our mines.

Under the Dodd-Frank Act, each operator of a coal or other mine is required to include certain mine safety results within its periodic reports filed with the SEC. As required by the reporting requirements included in §1503(a) of the Dodd-Frank Act, we present the following items regarding certain mining safety and health matters, for the period presented, for each of our mine locations that are covered under the scope of the Dodd-Frank Act:

- (A) Mine Act Section 104 Significant and Substantial ("S&S") citations shown below are for alleged violations of mandatory health or safety standards that could significantly and substantially contribute to a mine health and safety hazard.
- (B) Mine Act Section 104(b) orders are for alleged failures to totally abate a citation within the time period specified in the citation.
- (C) Mine Act Section 104(d) citations and orders are for an alleged unwarrantable failure (*i.e.*, aggravated conduct constituting more than ordinary negligence) to comply with mandatory health or safety standards.
- (D) Mine Act Section 110(b)(2) violations are for an alleged "flagrant" failure (*i.e.*, reckless or repeated) to make reasonable efforts to eliminate a known violation of a mandatory safety or health standard that substantially and proximately caused, or reasonably could have been expected to cause, death or serious bodily injury.
- (E) Mine Act Section 107(a) orders are for alleged conditions or practices which could reasonably be expected to cause death or serious physical harm before such condition or practice can be abated and result in orders of immediate withdrawal from the area of the mine affected by the condition.
- (F) Amounts shown include assessments proposed by MSHA for the year ended December 31, 2020 on all citations and orders, including those citations and orders that are not required to be included within the above chart.
- (G) Mine Act Section 104(e) written notices are for an alleged pattern of violations of mandatory health or safety standards that could significantly and substantially contribute to a mine safety or health hazard.

The following tables disclose the information listed above for the year ended December 31, 2020:

	Year ended December 31, 2020								
	(A)	(B)	(C)	(D)	(E)	(F)			
Mine Name/MSHA ID No.	Section 104 S&S Citations	Section 104(b) Orders	Section 104(d) Citations/Orders	Section 110(b)(2) Citations/Orders	Section 107(a) Orders	Total Dollar Value of MSHA Assessments Proposed (In thousands)			
Industrial Sand Processing Plt-North Branch/21-02917	_	_	_	_	_	\$ —			
Titan Lansing OKC Sand Plant/34-02189	2	_	_	_	_	\$4.2			

Year ended December 31, 2020

	(G)				
Mine Name/MSHA ID No.	Received Notice of Pattern of Violations Under Section 104(e) (yes/no)	Total Number of Mining Related Fatalities	Legal Actions Pending as of Last Day of Period	Legal Actions Initiated During Period	Legal Actions Resolved During Period
Industrial Sand Processing Plt-North Branch/21-02917	No	_	_	_	_
Titan Lansing OKC Sand Plant/34-02189	No	_	_	_	_

For the year ended December 31, 2020, there were no legal actions initiated, pending, or resolved before the Federal Mine Safety and Health Review Commission related to contests of citations and orders, contests of proposed penalties, complaints for compensation, complaints of discharge/discrimination/interference, applications for temporary relief, or appeals of judges' rulings.